• Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSEARCA–2019–80 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–NYSEARCA–2019–80. 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 (*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. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSEARCA–2019–80, and should be submitted on or before December 10, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[9]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–24982 Filed 11–18–19; 8:45 am]

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[9] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–87516; File No. SR–BOX–2019–32]

Self-Regulatory Organizations; BOX Exchange LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the Fee Schedule on the BOX Options Market LLC Facility To Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network

November 13, 2019.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on October 31, 2019, BOX Exchange LLC (the ''Exchange'') 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 Exchange filed the proposed rule change pursuant to Section 19(b)(3)(A)(ii) of the Act,[3] and Rule 19b–4(f)(2) thereunder,[4] which renders the proposal effective upon filing with the Commission. 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 the Substance of the Proposed Rule Change

The Exchange is filing with the Securities and Exchange Commission (''Commission'') a proposed rule change to amend the Fee Schedule on the BOX Options Market LLC (''BOX'') facility. The text of the proposed rule change is available from the principal office of the Exchange, at the Commission's Public Reference Room and also on the Exchange's internet website at *http://boxexchange.com.*

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.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(ii).

[4] 17 CFR 240.19b–4(f)(2).

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

1. Purpose

The Exchange is refiling its proposal to amend the Fee Schedule regarding connectivity to BOX in order to provide greater detail and clarity concerning BOX's costs, as they pertain to expenses for network connectivity services. The Exchange is now presenting more connectivity cost details that correspond with income statement expense line items to provide greater transparency into its actual costs associated with providing network connectivity services. The Exchange believes that its proposed fees are fair and reasonable because they will permit recovery of less than all of the Exchange's costs for providing connectivity and will not result in excessive pricing or supracompetitive profit, when comparing the Exchange's total annual expense associated with providing the network connectivity services versus the total projected annual revenue the Exchange projects to collect for providing the network connectivity services.

The Exchange proposes to amend Section VI. (Technology Fees) of the BOX Fee Schedule to establish BOX Connectivity Fees for Participants and non-Participants who connect to the BOX network. Connectivity fees will be based upon the amount of bandwidth that will be used by the Participant or non-Participant. Further, BOX Participants or non-Participants connected as of the last trading day of each calendar month will be charged the applicable Connectivity Fee for that month. The Connectivity Fees will be as follows:

Connection type	Monthly fees
Non-10 Gb Connection ...	$1,000 per connection.
10 Gb Connection	$5,000 per connection.

The Exchange also proposes to amend certain language and numbering in Section VI.A to reflect the changes discussed above. Specifically, the Exchange proposes to add the title ''Third Party Connectivity Fees'' under Section VI.A. Further, the Exchange proposes to add Section VI.A.2, which details the proposed BOX Connectivity Fees discussed above. Finally the Exchange is proposing to remove Section VI.C. High Speed Vendor Feed (''HSVF''), and reclassify the HSVF as a Port Fee.

The Exchange initially filed the proposed fees on July 19, 2018, designating the proposed fees effective July 1, 2018. The first proposed rule change was published for comment in the **Federal Register** on August 2, 2018.[5] The Commission received one comment letter on the proposal.[6] The proposed fees remained in effect until they were temporarily suspended pursuant to a suspension order (the ''Suspension Order'') issued by the Division of Trading and Markets, which also instituted proceedings to determine whether to approve or disapprove the proposed rule change.[7] The Commission subsequently received one further comment letter on the proposed rule change, supporting the decision to suspend and institute proceedings on the proposed fee change.[8]

In response to the Suspension Order, the Exchange timely filed a Notice of Intention to Petition for Review[9] and Petition for Review to vacate the Division's Order,[10] which stayed the Division's suspension of the filing. On November 16, 2018 the Commission granted the Exchange's Petition for Review but discontinued the automatic stay.[11] The Exchange then filed a statement to reiterate the arguments set for in its petition for review and to supplement that petition with additional information.[12]

The Exchange subsequently refiled its fee proposal on November 30th, 2018. The proposed fees were noticed and again temporarily suspended pursuant to a suspension order issued by the Division of Trading and Markets, which also instituted proceedings to determine whether to approve or disapprove the proposed rule change.[13] The Commission received two comment letters supporting the decision to suspend and institute proceedings on the proposed fee change.[14]

The Exchange again refiled its fee proposal on February 13, 2019. The proposed fees were noticed and again temporarily suspended pursuant to a suspension order issued by the Division of Trading and Markets, which also instituted proceedings to determine whether to approve or disapprove the proposed rule change.[15] The Commission received four comment letters supporting the decision to suspend and institute proceedings on the proposed fee change.[16]

On March 29, 2019, the Commission issued its Order Disapproving each iteration of the BOX Proposal (''BOX Order''). In the BOX Order, the Commission highlighted a number of deficiencies it found in three separate rule filings by BOX to establish BOX's connectivity fees that prevented the Commission from finding that BOX's proposed connectivity fees were consistent with the Act.

On May 21, 2019 the Division of Trading and Markets released new Guidance on SRO Rule Filings Relating to Fees. The Exchange then refiled the proposed fees on June 26, 2019 to incorporate the new guidance released by the Commission.

The Commission received two comment letters on BOX's June 26, 2019 Proposal.[17] The Third SIFMA Comment Letter did not request that the Commission suspend BOX's Proposal, but rather requested that the Commission ''carefully consider whether BOX provided sufficient evidence to satisfy the applicable statutory standards.'' The Fourth Healthy Markets Letter walks through the procedural history of the BOX and MIAX filings and urges the Commission to propose reforms with regard to immediately effective rule filings.

On September 5, 2019 the Exchange withdrew the proposed rule change and refiled the proposed fees to further bolster its cost-based discussion to support its claim that the Proposal is fair and reasonable because they will permit recovery of a portion of BOX costs and will not result in excessive pricing or supra-competitive profit. The Commission received only one comment letter on the proposed rule change, twelve days after the comment period ended.[18] Of note, no Participant, other person, industry group, or operator of an options market commented on the proposed rule change. Rather, the only comment letter came from an operator of a single equities market (equities market structure and the resulting network demands are fundamentally different from those in the options markets) and which the operator also has a fundamentally different business model (and agenda) than does the Exchange. That letter called for, among other things, the Exchange to explain its basis for concluding it incurred substantially

[5] *See* Securities Exchange Act Release No. 83728 (July 27, 2018), 83 FR 37853 (August 2, 2018) (SR–BOX–2018–24).

[6] *See* Letter from Tyler Gellasch, Executive Director, The Healthy Markets Association, to Brent J. Fields, Secretary, Commission, dated August 23, 2018 (''Healthy Markets Letter'').

[7] *See* Securities Exchange Act Release No. 34–84168 (September 17, 2018).

[8] *See* Letter from Theodore R. Lazo, Managing Director and Associate General Counsel, and Ellen Greene, Managing Director, Financial Services Operations, Securities Industry and Financial Markets Association, dated October 15, 2018.

[9] *See* Letter from Amir Tayrani, Partner, Gibson, Dunn & Crutcher LLP, dated September 19, 2018.

[10] *See* Petition for Review of Order Temporarily Suspending BOX Exchange LLC's Proposal to Amend the Fee Schedule on BOX Market LLC, dated September 26, 2018.

[11] *See* Securities Exchange Act Release No. 84614. Order Granting Petition for Review and Scheduling Filing of Statements, dated November 16, 2018. Separately, the Securities Industry and Financial Markets Association filed an application under Section 19(d) of the Exchange Act challenging the Exchange's proposed fees as alleged prohibitions or limitations on access. *See In re Securities Industry and Financial Markets Association,* Admin. Proc. File No. 3–18680 (Aug. 24, 2018). The Commission thereafter remanded that denial-of-access proceeding to the Exchange while ''express[ing] no view regarding the merits'' and emphasizing that it was ''not set[ting] aside the challenged rule change[ ].'' *In re Applications of SIFMA & Bloomberg,* Exchange Act Rel. No. 84433, at 2 (Oct. 16, 2018) (''Remand Order''), *available at https://www.sec.gov/litigation/opinions/2018/34-84433.pdf.* The Division's Suspension Order is inconsistent with the Commission's intent in the Remand Order to leave the challenged fees in place during the pendency of the remand proceedings and singles out the Exchange for disparate treatment because it means that the Exchange—unlike every other exchange whose rule changes were the subject of the Remand Order—is not permitted to continue charging the challenged fees during the remand proceedings.

[12] *See* Letter from Amir Tayrani, Partner, Gibson, Dunn & Crutcher LLP, dated December 10, 2018.

[13] *See* Securities Exchange Act Release No. 84823 (December 14, 2018), 83 FR 65381 (December 20, 2018) (SR–BOX–2018–37).

[14] *See* Letters from Tyler Gellasch, Executive Director, The Healthy Markets Association (''Second Healthy Markets Letter''), and Chester Spatt, Pamela R. and Kenneth B. Dunn Professor of Finance, Tepper School of Business, Carnegie Mellon University (''Chester Spatt Letter''), to Brent J. Fields, Secretary, Commission, dated January 2, 2019.

[15] *See* Securities Exchange Act Release No. 85201 (February 26, 2019), 84 FR 7146 (March 1, 2019) (SR–BOX–2019–04).

[16] *See* Letters from Theodore R. Lazo, Managing Director and Associate General Counsel, SIFMA (''Second SIFMA Comment Letter''), Tyler Gellasch, Executive Director, Healthy Markets Association (''Third Healthy Markets Letter''), Stefano Durdic, Former Owner of R2G Services, LLC, and Anand Prakash.

[17] *See* Letter from Theodore R. Lazo, Managing Director and Associate General Counsel, SIFMA, dated August 5, 2019 (''Third SIFMA Comment Letter'') and Letter from Tyler Gellasch, Executive Director, Healthy Markets Association, dated August 5, 2019 (''Fourth Healthy Markets Letter'').

[18] *See* Letter from John Ramsay, Chief Market Policy Officer, Investors Exchange LLC (''IEX'') to Vanessa Countryman, Secretary, Commission, dated October 9, 2019.

higher costs to provide lower-latency connections and further described the nature and closeness of the relationship between the identified costs and connectivity products and services as stated in the Exchange's cost allocation analysis.

The Exchange is again re-filing the fee proposal (''the Proposal'') to provide greater detail and clarity concerning the Exchange's costs, as they pertain to the Exchange's expense relating to the provision of network connectivity services. The Exchange is also refiling its proposal in order to clarify certain points raised in the IEX Letter.

The Exchange believes that the proposed fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are, as demonstrated by this Proposal and supported by evidence (including data and analysis), constrained by significant competitive forces; and (iv) are, supported by specific information (including quantitative information), fair and reasonable because they will permit recovery of a portion of BOX's costs and will not result in excessive pricing or supracompetitive profit. Accordingly, the Exchange believes that the Commission should find that the proposed fees are consistent with the Act. The proposed rule change is immediately effective upon filing with the Commission pursuant to Section 19(b)(3)(A) of the Act.

As discussed herein, the Exchange believes that it is reasonable and appropriate to begin charging for physical connectivity fees to partially offset the costs associated with maintaining and enhancing a state-of-the-art exchange network infrastructure in the US options industry. There are significant costs associated with various projects and initiatives to improve overall network performance and stability, as well as costs paid to the third-party data centers for space rental, power used, etc.

BOX has always offered physical connectivity to Participants and non-Participants to access the BOX's trading platforms, market data, test systems and disaster recovery facilities. These physical connections consist of 10Gb and non-10Gb connections, where the 10Gb connection provides for faster processing of messages sent to it in comparison to the non-10Gb connection. Since launching in 2012, BOX has not charged for physical connectivity and has instead relied on transaction fees as the basis of revenue. However, in recent years transaction fees have continually decreased across the options industry. At the same time these transactions fees were decreasing, the options exchanges, except for BOX, began charging physical connectivity fees to market participants. As such, BOX began to find itself at a significant competitive disadvantage due to the decreased transaction fees at other exchanges. To remain competitive, BOX was forced to follow suit and decrease its transaction fees in order to continue receiving order flow to the Exchange. While other exchanges lowered transaction fees, they were still able to rely on the connectivity fee revenues as a means of covering a portion of the costs to operate their respective exchanges. BOX had no choice but to begin charging Participants and non-Participants fees for connecting directly to the BOX network (which BOX has taken considerable measures to maintain and enhance for the benefit of those Participants and non-Participants) in order to remain competitive with the other options exchanges in the industry.

As discussed in the Exchange's recent Petition for Review of the Commission's Order Disapproving BOX's three filings, not allowing BOX to charge such connectivity fees arbitrarily and inequitably treats BOX differently from each of the other exchanges that submitted prior immediately effective connectivity fee filings that were not suspended or disapproved by the Commission.[19] The Exchange notes that all other options exchanges currently charge for similar physical connectivity.[20]

2. Statutory Basis

The Exchange believes that the proposal is consistent with the requirements of Section 6(b) of the Act, in general, and Section 6(b)(4) and 6(b)(5)of the Act,[21] in particular, in that it provides for the equitable allocation of reasonable dues, fees, and other charges among BOX Participants and other persons using its facilities and does not unfairly discriminate between customers, issuers, brokers or dealers.

The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. 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.'' [22]

The Exchange believes that the proposed fees in general constitute an equitable allocation of fees, and are not unfairly discriminatory, because they allow BOX to recover costs associated with offering access through the network connections. The proposed fees are also expected to offset the costs both the Exchange and BOX incur in maintaining and implementing ongoing improvements to the trading systems, including connectivity costs, costs incurred on software and hardware enhancements and resources dedicated to software development, quality assurance, and technology support.

The Exchange believes that its proposal is consistent with Section 6(b)(4) of the Act, in that the proposed fee changes are fair, equitable and not unreasonably discriminatory, because the fees for the connectivity alternatives available on BOX, as proposed, are constrained by significant competitive forces. The U.S. options markets are highly competitive (there are currently 16 options markets) and a reliance on competitive markets is an appropriate means to ensure equitable and reasonable prices. As stated above, BOX instituted the proposed fees after finding itself at a competitive disadvantage with other options exchanges. As other options exchanges lowered their transaction fees, they were

[19] *See* Securities Exchange Act Release No. 85927. Order Granting Petition for Review and Scheduling Filing of Statements, dated May 23, 2019.

[20] Nasdaq PHLX LLC (''Phlx''), The Nasdaq Stock Market LLC (''Nasdaq''), NYSE Arca, Inc. (''Arca''), NYSE American LLC (''NYSE American''), Nasdaq ISE, LLC (''ISE''), Cboe Exchange, Inc. (''Cboe''), Cboe BZX Exchange, Inc. (''CboeBZX''), Cboe EDGX Exchange, Inc. (''CboeEDGX'') and Cboe C2 Exchange, Inc. (''C2'') all offer a type of 10Gb and non-10Gb connectivity alternative to their participants. See Phlx, and ISE Rules, General Equity and Options Rules, General 8, Section 1(b). Phlx and ISE each charge a monthly fee of $2,500 for each 1Gb connection, $10,000 for each 10Gb connection and $15,000 for each 10Gb Ultra connection, which is the equivalent of the Exchange's 10Gb ULL connection. See also Nasdaq Price List—Trading Connectivity. Nasdaq charges a monthly fee of $7,500 for each 10Gb direct connection to Nasdaq and $2,500 for each direct connection that supports up to 1Gb. See also NYSE American Fee Schedule, Section V.B, and Arca Fees and Charges, Co-Location Fees. NYSE American and Arca each charge a monthly fee of $5,000 for each 1Gb circuit, $14,000 for each 10Gb circuit and $22,000 for each 10Gb LX circuit, which is the equivalent of the Exchange's 10Gb ULL connection. See also Cboe, CboeBZX, CboeEDGX and C2 Fee Schedules. Cboe charges monthly quoting and order entry bandwidth packet fees. Specifically, Cboe charges $1,600 for the 1st through 5th packet, $800 for the 6th through 8th packet, $400 for the 9th through 13th packet and $200 for the 14th packet and each additional packet. CboeBZX, CboeEDGX and C2 each charge a monthly fee of $2,500 for each 1Gb connection and $7,500 for each 10Gb connection.

[21] 15 U.S.C. 78f(b)(4) and (5).

[22] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496 (June 29,2005).

still able to rely on the connectivity fee revenues as a means of covering a portion of the costs to operate their respective exchanges. By not charging for connectivity, BOX could not realistically compete for order flow through reduced transaction fees and still remain solvent.

Further, as the Exchange explained to the Division in previous filings and comment letters, the existence of robust competition between exchanges to attract order flow requires exchanges to keep prices for all of their joint services—including connectivity to the exchanges' networks at a pro-competitive level.[23] This conclusion is substantiated by the report prepared by Professor Janusz A. Ordover and Gustavo Bamberger addressing the theory of ''Platform Competition'' and its application to the pricing of exchanges' services, including connectivity services.[24] In the report, Ordover and Bamberger explain that ''the provision of connectivity services . . . is inextricably linked to the provision of trading services, so that, as a matter of economics, it is not possible to appropriately evaluate the pricing of connectivity services in isolation from the pricing of trading and other 'joint' services offered by'' an exchange. Ordover and Bamberger state that ''connectivity services are an 'input' into trading'' and that ''excessive pricing of such services would raise the costs of trading on [an exchange] relative to its rivals and thus discourage trading on'' that exchange.

Although the Ordover/Bamberger Statement focuses on the pricing of connectivity services by Nasdaq-affiliated equities exchanges, its ''overarching conclusion . . . that the pricing of connectivity services should not be analyzed in isolation'' applies with equal force to the proposed BOX fees. As discussed herein, BOX is engaged with rigorous competition with other exchanges to attract order flow to its platform. As such, BOX is constrained in its ability to price its joint services—including connectivity services—at supracompetitive levels. That competition ensures that BOX's connectivity fees are set at levels consistent with the requirements of the Exchange Act.

The Exchange acknowledges that there is no regulatory requirement that any market participant must connect to BOX, or that any participant must connect at any specific connection speed. The rule structure for options exchanges are, in fact, fundamentally different from those of equities exchanges. In particular, options market participants are not forced to connect to (and purchase market data from) all options exchanges, as shown by the number of Participants of BOX as compared to the much greater number of participants at other options exchanges. Not only does BOX have less than half the number of participants as certain other options exchanges, but there are also a number of BOX Participants that do not connect directly to BOX. Further, of the number of Participants that connect directly to BOX, many such Participants do not purchase market data from BOX. In addition, of the market makers that are connected to BOX, it is the individual needs of the market maker that require whether they need one connection or multiple connections to BOX. BOX has market maker Participants that only purchase one connection (10Gb) and BOX has market maker Participants that purchase multiple connections. It is all driven by the business needs of the market maker. Market makers that are consolidators that target resting order flow tend to purchase more connectivity than market makers that simply quote all symbols on BOX. Even though non-Participants purchase and resell 10Gb and non-10Gb connections to both Participants and non-Participants, no market makers currently connect to BOX indirectly through such resellers.

The argument that all broker-dealers are required to connect to all exchanges is not true in the options markets. The options markets have evolved differently than the equities markets both in terms of market structure and functionality. For example, there are many order types that are available in the equities markets that are not utilized in the options markets, which relate to mid-point pricing and pegged pricing which require connection to the SIPs and each of the equities exchanges in order to properly execute those orders in compliance with best execution obligations. In addition, in the options markets there is a single SIP (OPRA) versus two SIPs in the equities markets, resulting in few hops and thus alleviating the need to connect directly to all the options exchanges. Additionally, in the options markets, the linkage routing and trade through protection are handled by the exchanges, not by the individual participants. Thus not connecting to an options exchange or disconnecting from an options exchange does not potentially subject a broker-dealer to violate order protection requirements as suggested by SIFMA. The Exchange recognizes that the decision of whether to connect to BOX is separate and distinct from the decision of whether and how to trade on BOX. The Exchange acknowledges that many firms may choose to connect to BOX, but ultimately not trade on it, based on their particular business needs.

Further, there is competition for connectivity to BOX. BOX competes with ten (10) non-Participants who resell BOX connectivity or market data. These are resellers of BOX connectivity—they are not arrangements between broker dealers to share connectivity costs. Those non-Participants resell that connectivity to multiple market participants over that same connection, including both Participants and non-Participants of BOX. When connectivity is re-sold by a third-party, BOX does not receive any connectivity revenue from that sale. It is entirely between the third-party and the purchaser, thus constraining the ability of BOX to set its connectivity pricing as indirect connectivity is a substitute for direct connectivity. There are currently ten (10) non-Participants that purchase connectivity to BOX. Those non-Participants resell that connectivity or market data to approximately twenty-seven (27) customers, some of whom are agency broker-dealers that have tens of customers of their own. Some of those twenty-seven (27) customers also purchase connectivity directly from BOX. Accordingly, indirect connectivity is a viable alternative that is already being used by non-Participants of BOX, constraining the price that BOX is able to charge for connectivity.

The Exchange is comprised of 50 BOX Participants. Of those 50 Participants, 27 Participants have purchased 10Gb or non-10Gb connections or some combination of multiple various connections. The remaining Participants who have not purchased any connectivity to BOX are still able to trade on BOX indirectly through other Participants or non-Participant service bureaus that are connected. These remaining Participants who have not purchased connectivity are not forced or compelled to purchase connectivity, and they retain all of the other benefits of membership with the Exchange. Accordingly, Participants and non-Participants have the choice to purchase connectivity and are not compelled to do so in any way.

The Exchange believes that the proposed fees are fair, equitable and not unreasonably discriminatory because the connectivity pricing is directly

[23] Letter from Lisa J. Fall, BOX, to Brent J. Fields, Secretary, Securities and Exchange Commission (Feb. 19, 2019), *https://www.sec.gov/comments/sr-box-2018-24/srbox201824-4945872-178516.pdf.*

[24] *Id.*

related to the relative costs to BOX to provide those respective services and does not impose a barrier to entry to smaller participants. Accordingly, BOX offers various direct connectivity alternatives and various indirect connectivity (via third party) alternatives. BOX recognizes that there are various business models and varying sizes of market participants conducting business on BOX. The decision of which type of connectivity to purchase, or whether to purchase connectivity at all for a particular exchange, is based on the business needs of the firm. To assist prospective Participants or firms considering connecting to BOX, the Exchange provides information about BOX's available connectivity alternatives on the BOX website.[25] Section 2.4 of the BOX Connectivity Guide details the bandwidth requirements depending on the type of traffic each firm requires.

The non-10Gb direct connectivity alternatives [26] are all comprised of bandwidth of equal to or less than 1Gb and are purchased by market participants that require less bandwidth. For example, a firm requiring only simple order routing (which requires 128 kbps of bandwidth) would be satisfied with a non-10Gb connection. Additionally, non-10Gb connections can fully support both the sending of orders and the consumption of BOX's HSVF Data Feed.[27] By definition, non-10Gb connections utilize less bandwidth and consume less resources from the network. Additionally, non-10Gb connections and their interface modules cost considerably less than 10Gb connections. Accordingly, because these connections consume the least resources of the Exchange and are the least costly for the Exchange to provide, the non-10Gb connections are at a lower price point than the 10Gb connections.

In contrast, market participants that purchase 10Gb connections utilize the most bandwidth and consume the most resources from the network.[28] The 10Gb connection offers optimized connectivity for latency sensitive participants and is faster in round trip time for connection oriented traffic to BOX than the non-10Gb connection. This lower latency is achieved through more advanced network equipment, such as advanced hardware and switching components, which translates to increased costs to BOX. A 10Gb connection uses at least ten times the network infrastructure as the non-10Gb connections as BOX has to scale the systems by the amount and size of all connections regardless of how they are used.[29] Accordingly, the Exchange believes that the allocation of the proposed fees ($1,000 per non-10Gb connection and $5,000 per 10Gb connection) are reasonable based on the resources consumed by the respective type of connection—lower resource consuming market participants pay the least, and highest resource consuming market participants pay the most, particularly since higher resource consumption translates to higher costs to BOX.[30]

Separately, the Exchange is not aware of any reason why market participants could not simply drop their connections and cease being BOX Participants if the Exchange were to establish unreasonable and uncompetitive price increases for its connectivity alternatives. Market participants choose to connect to a particular exchange and because it is a choice, BOX must set reasonable connectivity pricing, otherwise prospective participants would not connect and existing participants would disconnect or connect through a third-party reseller of connectivity. No options market participant is required by rule, regulation, or competitive forces to be a BOX Participant.[31] As evidence of the fact that market participants can and do disconnect from exchanges based on connectivity pricing, see the R2G Services LLC (''R2G'') letter based on BOX's proposed rule changes to increase its connectivity fees. The R2G letter stated, ''[w]hen BOX instituted a $10,000/month price increase for connectivity; we had no choice but to terminate connectivity into them as well as terminate our market data relationship. The cost benefit analysis just didn't make any sense for us at those new levels.'' [32] Accordingly, this example shows that if an exchange sets too high of a fee for connectivity and/or market data services for its relevant marketplace, market participants can choose to disconnect from the exchange.

Several market participants choose not to be BOX Participants and choose not to access BOX, and several market participants also access BOX indirectly through another market participant. If all market participants were required to be Participants of each exchange and connect directly to the exchange, all exchanges would have over 200 Participants, in line with Cboe's total membership.

The Exchange believes that its proposal is consistent with Section 6(b)(4) of the Act because the proposed fees allow the BOX to recover a portion of the costs incurred by BOX associated with maintaining and enhancing a state-of-the-art exchange network infrastructure in the US options industry. Additionally, there are significant costs associated with various projects and initiatives to improve overall network performance and stability, as well as costs paid to the third-party data centers for space rental, power used, etc.

The Exchange notes that unlike its competitors, BOX does not own its own data center and therefore cannot control data center costs. While some of the data center expenses are fixed, much of the expenses are not fixed, and thus increases as the number of physical connections increase. For example, new non-10Gb and 10Gb connections require the purchase of additional hardware to support those connections. Further, as the total number of all connections increase, BOX needs to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider.

Further, as discussed herein, because the costs of operating a data center are significant and not economically feasible for BOX, BOX does not operate its own data centers, and instead contracts with a third-party data center provider. The Exchange notes that

[25] *See* BOX Connectivity Guide at *https://boxoptions.com/assets/NET-BX-001E-BOX-Network-Connection-Specifications-v2.7.pdf.*

[26] Non-10Gb connectivity alternatives are comprised of protocol types that are at or under 1Gb bandwidth. The protocol types are: Gigabit Ethernet, Ethernet, Fast Ethernet, Fiber Channel, OC–3, Singlemode Fiber, ISDN, POTS and T1.

[27] BOX's HSVF Data Feed does not require a 10Gb physical connection. However, to receive the five best limits on the HSVF, a 10Gb connection is required. On MIAX, the 1Gb connection cannot support the consumption of the top of market data feed or the depth data feed product—both require a 10Gb connection.

[28] Supporting a 10Gb connection requires larger internal uplinks, firewalls and sniffer devices, all of which cost considerably more to maintain than support for non10-Gb connections.

[29] The Exchange's network infrastructure requirements are based on the premise of all connections operating at full capacity,

[30] The IEX Comment Letter questioned if there were cost differentials between 10Gb and non-10Gb connections, stating that ''the hardware components to support a 10Gb connection are essentially the same as those for a non-10Gb connection . . . there may be marginally higher maintenance costs in the way of replacements or upgrades for a 10Gb option, but IEX believes the difference in exchange cost for a 10Gb connection will certainly be less than twice that of a higher latency connection.'' As described above, this is not true for BOX.

[31] Cboe Exchange Inc. has over 200 members, Nasdaq ISE, LLC has approximately 100 members, and NYSE American LLC has over 80 members. In comparison, the BOX has 51 Participants.

[32] The Exchange notes that R2G was a non-Participant service provider who connected to BOX at no cost and then sold BOX connectivity and market data to its customers. The $10,000 charge referenced in the R2G Letter was for two (2) 10Gb connections.

larger, dominant exchange operators own/operate their data centers, which offers them greater control over their data center costs. Because those exchanges own and operate their data centers as profit centers, BOX is subject to additional costs. Connectivity fees, which are charged for accessing the BOX's data center network infrastructure, are directly related to the network and offset such costs.

As detailed in the Exchange's and BOX Market's [33] 2018 audited financial statements which are publicly available as part of the Exchange's Form 1 Amendment, BOX only has two sources of revenue that it can control: Transaction fees and non-transactions fees.[34] Accordingly, BOX must cover all of its expenses from these two sources of revenue.

The Proposed Fees are fair and reasonable because they will not result in excessive pricing or supracompetitive profit, when comparing the total annual expense of the Exchange and BOX associated with providing the network connectivity services versus the total projected annual revenue of the Exchange [35] and BOX associated with providing the network connectivity services.

For 2018, the annual expense for BOX and the Exchange associated with providing the network connectivity services was approximately $8.9 million. This amount is comprised of both direct and indirect expenses. The financial information below is meant to provide greater detail and clarity concerning BOX's cost allocations as they pertain to expenses for network connectivity services; and further describe the nature and closeness of the relationship between the identified costs and connectivity services where possible.

The direct expense (which relates 100% to the network infrastructure, associated data center processing equipment required to support various connections, network monitoring systems and associated software required to support the various forms of connectivity) was approximately $6.4 million.[36] A more detailed breakdown of the direct annual operational expense in 2018 includes the following:

- Over $2.8 million for space rental, power usage, connections, etc. at the Exchanges data centers; [37]
- Over $1.1 million for data center support and management of third party vendors; [38]
- Over $700,000 in technological improvements to the data center infrastructure; [39]
- Over $1.4 million for resources for technical and operational services for the Exchange's data centers; [40] and
- $400,000 in market data connectivity fees.[41]

The indirect expense (which includes expense from such areas as trading operations, software development, business development, information technology, marketing, human resources, legal and regulatory, finance and accounting) that the Exchange and BOX allocate to the maintenance and support of network connectivity services was approximately $2.5 million.[42] Included in this indirect expense total are the following:

- Over $1 million in employee compensation and benefits for full-time employees that support network connectivity services; [43]
- Over $1 million in software and hardware depreciation; [44]
- Over $100,000 in office space and rent to support employees related to network connectivity; [45] and
- Over $200,000 in miscellaneous data, communications, external IT, and regulatory audit costs relate to expenses that support general connectivity for trading and personnel support.[46]

Total projected annualized revenue associated with selling the network connectivity services (reflecting the proposed fees on a fully-annualized basis, using July 2019 data) for BOX is projected to be approximately $4.6 million. This projected revenue amount of $4.6 million represents approximately 13% of total net revenue of BOX and Exchange for 2018 of approximately $35.5 million. The Exchange believes that an indirect expense allocation of 10% of total expense (less direct expense) to network connectivity services is fair and reasonable, as total projected network connectivity revenue represents approximately 13% of total net revenue for 2018. That is, direct expense of $6.4 million plus indirect expense of $2.5 million fairly reflects the total annual

[33] BOX Exchange LLC (''Exchange'') and BOX Options Market LLC (''BOX'') are two different entities. The Exchange is a national securities exchange registered with the SEC under Section 6 of the Securities Exchange Act of 1934. The Exchange fulfills the regulatory functions and responsibilities and oversees BOX, the equity options market. Expenses associated with network connectivity services are born by both the Exchange and BOX.

[34] Options Price Authority Reporting (''OPRA'') income is not controlled by BOX.

[35] Revenues for the Exchange are limited to the Options Regulatory Fee (''ORF'') and fines and disgorgements.

[36] Direct connectivity expenses are a portion of the following line items in the BOX and Exchange Form 1 Financial Statements: Technical and Operational, Other and Communications and Data Processing. The Exchange notes that these direct expenses include all expenses associated with the Exchanges' data centers. BOX's infrastructure design does not distinguish network connectivity expenses from other data center expenses. In other words, network connectivity is intertwined with the overall infrastructure of the BOX system.

[37] This cost can be found in three line items in the Statement of Income of the BOX and Exchange Form 1 documents: ''Professional Services: Other,'' ''Professional Services: Technical and Operational''; and ''Communications and data processing.

[38] These costs include annual service and support contracts with a large number of third party vendors to support the data centers and trading platform. These costs appear in the ''Professional Services: Technical and Operational'' line item of the Statement of Income of the BOX and Exchange Form 1 documents.

[39] This cost is represented on the BOX's Financial Statement document under the ''Computer equipment and software and leasehold improvements'' line item. The associated amortization in 2018 was excluded from the indirect depreciation outlined herein.

[40] These costs are included in the ''Professional Services: Technical and Operational'' line item of the Statement of Income of the BOX and Exchange Form 1 documents.

[41] A portion can be tied to the ''Communications and data processing'' line item of the BOX and Exchange Statement of Income. The remaining portion is in the ''Professional Services: Other'' line item of the BOX and the Exchange Statement of Income. Of note, regarding market data connectivity fees, this is the cost associated with BOX consuming connectivity/content from the equities markets in order to operate the Exchange, causing BOX to effectively pay its competitors for this connectivity.

[42] Indirect expenses for connectivity are a portion of the following line items in the BOX and Exchange Form 1 Financial Statements: Employee Costs, Depreciation and Amortization, Consulting, Financial and Administrative, and Other. The Exchange notes that these indirect expenses represent approximately 10% of the total annual expenses for BOX and the Exchange in 2018.

[43] This cost includes employees in network operations, trading operations, development, system operations, business, etc., as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions. BOX's employee compensation and benefits expense relating to providing network connectivity services was a portion of the total expense for employee compensation and benefits that is stated in the 2018 Financial Statements for BOX and the Exchange.

[44] This cost includes depreciation and amortization of hardware and software used to provide network connectivity services, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the provision of network connectivity for trading.

BOX's depreciation and amortization expense relating to providing network connectivity services was a portion of the total expense for depreciation and amortization that is stated in the 2018 Financial Statements for BOX and the Exchange.

[45] This cost includes occupancy costs for leased office space for staff that support the provision of network connectivity services. BOX and Exchange's combined occupancy expense relating to providing network connectivity services is a portion of the total expense for occupancy that is stated in the 2018 Financial Statements for BOX and the Exchange.

[46] The combined miscellaneous expense relating to trading connectivity and personnel support was a portion of multiple line items in the 2018 Financial Statements for BOX and the Exchange.

expense associated with providing the network connectivity services, both from the perspective of similar revenue and expense percentages (connectivity to total), as well as matching connectivity resources to connectivity expenses. The Exchange believes that this is a conservative allocation of indirect expense. Accordingly, the total projected connectivity revenue for BOX, reflective of the proposed fees, on an annualized basis, of $4.6 million, is almost half of the total annual actual BOX and Exchange connectivity expense (direct and indirect) for 2018 of $8.9 million. Further, even the direct expense associated with providing network connectivity ($6.4 million) exceeds expected revenue from connectivity.

The Exchange projects comparable network connectivity revenue and expense for 2019 for BOX. Accordingly, the Proposed Fees are fair and reasonable because they do not result in excessive pricing or supracompetitive profit, when comparing the actual network connectivity costs to the Exchange and BOX versus the projected network connectivity annual revenue. Additional information on overall revenue and expense can be found in the Exchange's and BOX's 2018 audited financial results, which is publicly available as part of the Exchange's Form 1 filed with the Commission.

The Exchange again notes that other exchanges have similar connectivity alternatives for their participants, including similar low-latency connectivity. For example, Nasdaq PHLX LLC (''Phlx''), NYSE Arca, Inc. (''Arca''), NYSE American LLC (''NYSE American'') and Nasdaq ISE, LLC (''ISE'') all offer a 1Gb, 10Gb and 10Gb low latency ethernet connectivity alternatives to each of their participants.[47] The Exchange further notes that Phlx, ISE, Arca and NYSE American each charge higher rates for such similar connectivity to primary and secondary facilities.[48]

The financials above show that BOX has incurred substantial costs associated with maintaining and enhancing the BOX network. These costs, coupled with BOX's historically low transaction fees, place BOX at a competitive disadvantage against other options exchanges who charge connectivity fees to market participants. BOX has no choice but to begin charging Participants and non-Participants fees for connecting directly to the network which BOX has taken considerable measures to maintain and enhance for the benefit of those Participants and non-Participants in order to remain competitive with the other options exchanges in the industry.

Finally, the Exchange believes redefining the HSVF Connection Fee as a Port Fee is reasonable, equitable and not unfairly discriminatory. This classification is more accurate because an HSVF subscription is not enabled through a physical connection to the Exchange. Although market participant must be credentialed by BOX to receive the HSVF, anyone can become credentialed by submitting the required documentation.[49] The Exchange does not propose to alter the amount of the existing HSVF fee; subscribers to the HSVF will continue to pay $1,500 per month. As with the Connectivity Fees, BOX's HSVF Port Fee is in line with industry practice.[50]

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.

Intra-Market Competition

The Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. In particular, the Exchange has received no official complaints from Participants that purchase the Exchange's connectivity that the Exchange's fees or the Proposed Fees are negatively impacting or would negatively impact their abilities to compete with other market participants or that they are placed at a disadvantage.[51] The Exchange believes that the Proposed Fees do not place certain market participants at a relative disadvantage to other market participants because the connectivity pricing is associated with relative usage of the various market participants and does not impose a barrier to entry to smaller participants. As described above, the less expensive non-10Gb direct connection is generally purchased by market participants that utilize less bandwidth. The market participants that purchase 10Gb connections utilize the most bandwidth, and those are the participants that consume the most resources from the network. Accordingly, the Proposed Fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the allocation of the Proposed Fees reflect the network resources consumed by the various size of market participants—lowest bandwidth consuming members pay the least, and highest bandwidth consuming members pays the most, particularly since higher bandwidth consumption translates to higher costs to BOX.

Inter-Market Competition

The Exchange believes the Proposed Fees do not place an undue burden on competition on other SROs that is not necessary or appropriate. In particular, options market participants are not forced to connect to (and purchase market data from) all options exchanges, as shown by the number of Participants of BOX as compared to the much greater number of members at other options exchanges (as described above). Not only does BOX have less than half the number of Participants as certain other options exchanges, but there are also a number of the Exchange's Participants that do not connect directly to BOX. Additionally, the Exchange notes other exchanges have similar connectivity alternatives for their participants, including similar low-latency connectivity, but with much higher rates to connect.[52] The Exchange is also unaware of any assertion that its existing fee levels or the Proposed Fees would somehow unduly impair its competition with other options exchanges. To the contrary, if the fees charged are deemed too high by market participants, they can simply disconnect.

Unilateral action by the Exchange in establishing fees for services provided to its Participants and others using its facilities will not have an impact on

[47] *See* Phlx and ISE Rules, General Equity and Options Rules, General 8, Section 1(b). Phlx and ISE each charge a monthly fee of $2,500 for each 1Gb connection, $10,000 for each 10Gb connection and $15,000 for each 10Gb Ultra connection, which the equivalent of the Exchange's 10Gb ULL connection. *See also* NYSE American Fee Schedule, Section V.B, and Arca Fees and Charges, Co-Location Fees. NYSE American and Arca each charge a monthly fee of $5,000 for each 1Gb circuit, $14,000 for each 10Gb circuit and $22,000 for each 10Gb LX circuit, which the equivalent of the Exchange's 10Gb ULL connection.

[48] *Id.*

[49] *See Trading Interface Specification,* BOX Options, *https://boxoptions.com/technology/trading-interface-specifications/.*

[50] See Cboe Data Services, LLC (CDS) Fee Schedule § VI (charging $500 per month for up to five users to access the Enhanced Controlled Data Distribution Program).

[51] The Exchange notes that it did receive one complaint from a non-Participant third party that, prior to the proposed fees, received connectivity for free and resold it to other market participants. This non-Participant ceased connectivity to the Exchange in January 2019.

[52] *See supra* note 20.

competition. As a small exchange in the already highly competitive environment for options trading, the Exchange does not have the market power necessary to set prices for services that are unreasonable or unfairly discriminatory in violation of the Exchange Act. The Exchange's proposed fees, as described herein, are comparable to and generally lower than fees charged by other options exchanges for the same or similar services. Lastly, the Exchange believes the proposed change will not impose a burden on intramarket competition as the proposed fees are applicable to all Participants and others using its facilities that connect to BOX.

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 Exchange Act [53] and Rule 19b–4(f)(2) thereunder,[54] because it establishes or changes a due, or fee.

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

IV. Solicitation of Comments

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

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–BOX–2019–32 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–BOX–2019–32. 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 (*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 such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–BOX–2019–32, and should be submitted on or before December 10, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[55]

Jill M. Peterson,

Assistant Secretary.

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SECURITIES AND EXCHANGE COMMISSION

Submission for OMB Review; Comment Request

Upon Written Request, Copies Available From: Securities and Exchange Commission, Office of FOIA Services, 100 F Street NE, Washington, DC 20549–2736

Extension:

Rules 901, 902, 903(a), 904, 905, 906, 907, and 908 of Regulation SBSR, SEC File No. 270–629 OMB Control No. 3235–0718.

Notice is hereby given that pursuant to the Paperwork Reduction Act of 1995 (''PRA'') (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission (''Commission'') has submitted to the Office of Management and Budget (''OMB'') a request for approval of extension of the previously approved collection of information provided for in Rules 901, 902, 903(a), 904, 905, 906, 907, and 908 of Regulation SBSR (17 CFR 242.901, 902, 903(a), 904, 905, 906, 907, and 908) under the Securities Exchange Act of 1934 (15 U.S.C. 78a *et seq.*).

Regulation SBSR consists of ten rules, Rules 900 to 909 under the Exchange Act. Regulation SBSR provides generally for the reporting of security-based swap information to a registered security-based swap data repository (''registered SDRs'') or the Commission, and the public dissemination of security-based swap transaction, volume, and pricing information by registered SDRs. Rule 901 specifies, with respect to each reportable event pertaining to covered transactions, who is required to report, what data must be reported, when it must be reported, where it must be reported, and how it must be reported. Rule 901(a)(1) of Regulation SBSR requires a platform to report to a registered security-based swap data repository (''registered SDR'') a security-based swap executed on such platform that will be submitted to clearing. Rule 901(a)(2)(i) of Regulation SBSR requires a registered clearing agency to report to a registered SDR any security-based swap to which it is a counterparty. Rules 902 to 909 of Regulation SBSR provide additional details as to how such reporting and public dissemination is to occur.

The Commission estimates that a total of approximately 4900 entities will be impacted by Regulation SBSR, including registered SDRs, registered security-based swap dealers, registered major securities-based swap participants, registered clearing agencies, platforms, and reporting sides and other market participants. The Commission estimates that the total reporting burden for Regulation SBSR, for all respondents, is approximately 538,257.60 hours initially (which equates to approximately 179,419.20 hours per year when annualized over three years), with a total ongoing burden thereafter of approximately 1,887,021.07 hours per year. Thus, the aggregate yearly burden is approximately

[53] 15 U.S.C. 78s(b)(3)(A)(ii).

[54] 17 CFR 240.19b–4(f)(2).

[55] 17 CFR 200.30–3(a)(12).