SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-98212; File No. SR-FINRA-2022-032)

August 24, 2023

Self-Regulatory Organizations; Financial Industry Regulatory Authority, Inc.; Order Approving
Proposed Rule Change Relating to Alternative Display Facility New Entrant

I.   Introduction

On December 16, 2022, the Financial Industry Regulatory Authority, Inc. ("FINRA")

filed with the Securities and Exchange Commission ("Commission" or "SEC"), pursuant to

Section 19(b)(1) of the Securities Exchange Act of 1934 ("Exchange Act")[1] and Rule 19b-4

thereunder,[2] a proposed rule change (the "Proposal") to add IntelligentCross ATS

("IntelligentCross") as a new entrant to the Alternative Display Facility ("ADF"). The proposed

rule change was published for comment in the Federal Register on December 27, 2022.[3] On

February 9, 2023, the Commission extended the time period within which to approve the

proposed rule change, disapprove the proposed rule change, or institute proceedings to determine

whether to approve or disapprove the proposed rule change to March 27, 2023.[4] On March 24,

2023, the Commission initiated proceedings under Section 19(b)(2)(B) of the Exchange Act[5] to

determine whether to approve or disapprove the proposed rule change.[6] On June 21, 2023, the

Commission extended the time period for Commission action to August 24, 2023.[7] The

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

[2]   17 CFR 240.19b-4.

[3]   See Securities Exchange Act Release No. 96550 (December 20, 2022), 87 FR 79401 ("Notice").

[4]   See Securities Exchange Act Release No. 96864, 88 FR 9945 (February 15, 2023).

[5]   15 U.S.C. 78s(b)(2)(B).

[6]   See Securities Exchange Act Release No. 97195, 88 FR 19173 (March 30, 2023).

[7]   See Securities Exchange Act Release No. 97784, 88 FR 41710 (June 27, 2023).

Commission has received comments on the proposed rule change.[8] This order approves the
proposed rule change.

II.   Description of the Proposed Rule Change

The ADF is a quotation collection and trade reporting facility that provides ADF
participants (i.e., ADF-registered market makers or electronic communications networks)[9] the
ability to post quotations, display orders and report transactions in NMS stocks[10] for submission
to the securities information processors ("SIP") for consolidation and dissemination to vendors
and other market participants.[11] The ADF is also designed to deliver real-time data to FINRA
for regulatory purposes, including enforcement of requirements imposed by Regulation NMS.[12]

In particular, Regulation NMS includes an order protection rule that provides that a
trading center "shall establish, maintain, and enforce written policies and procedures that are
reasonably designed to prevent trade-throughs on that trading center of protected quotations in
NMS stocks" that do not fall within one of the exceptions set forth in the rule.[13] For quotations
to be protected under the rule, they must be, among other things, executable "immediately and
automatically" against an incoming immediate-or-cancel ("IOC") order.[14] In 2016, the
Commission interpreted Regulation NMS's immediacy requirement to allow for "an intentional

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access delay that is <u>de</u> <u>minimis</u>—i.e., a delay so short as to not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's quotations."[15] The Commission stated that "[i]n the context of Regulation NMS, the term 'immediate' does not preclude all intentional delays regardless of their duration, and such preclusion is not necessary to achieve the objectives of Rule 611. As long as any intentional delay is <u>de</u> <u>minimis</u> – i.e., does not impair fair and efficient access to an exchange's protected quotations – it is consistent with both the text and purpose of Rule 611."[16]

In addition, Rule 610 of Regulation NMS requires that a trading center displaying quotations in an NMS stock through a self-regulatory organization ("SRO") display-only facility (such as the ADF) "provide a level and cost of access to such quotations that is substantially equivalent to the level and cost of access to quotations displayed by SRO trading facilities in that stock."[17] Rule 610 also requires that a trading center displaying quotations in an NMS stock through an SRO display-only facility not impose unfairly discriminatory terms that prevent or inhibit any person from obtaining efficient access to such quotations through a member, subscriber, or customer of the trading center.[18] In articulating this standard, the Commission stated that the level and cost of access would "encompass both (1) the policies, procedures, and standards that govern access to quotations of the trading center, and (2) the connectivity through

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[15]   Commission Interpretation Regarding Automated Quotations Under Regulation NMS, Securities Exchange Act Release No. 78102 (June 17, 2016), 81 FR 40785, 40792 (June 23, 2016) ("Commission Interpretation of Automated Quotations").

[16]   <u>See</u> <u>id.</u> at 40789; <u>see</u> <u>also</u> <u>Citadel Secs. LLC v. SEC</u>, 45 F.4th 27, 35 (D.C. Cir. 2022) (finding the Commission's conclusion that "mere de minimis delays do not cause an order to violate Regulation NMS's immediacy requirement" was reasonable).

[17]   17 CFR 242.610(b)(1).

[18]   17 CFR 242.610(b)(2).

which market participants can obtain access and the cost of such connectivity."[19] The nature and

cost of connections for market participants seeking to access an ADF participant's quotations

would need to be substantially equivalent to the nature and cost of connections to SRO trading

facilities.[20]

In evaluating whether a prospective ADF participant meets the access standards under

Rule 610, Regulation NMS requires FINRA to submit a proposed rule change under Section

19(b) of the Exchange Act in order to add the new ADF participant.[21] Accordingly, FINRA is

proposing to add IntelligentCross as a new ADF participant.[22] IntelligentCross is an NMS stock

alternative trading system ("ATS") operating pursuant to an effective Form ATS-N.[23]

IntelligentCross currently operates three separate limit order books with optional display

capability distinguished by different fee structures—the ASPEN fee/fee limit order book

("ASPEN Fee/Fee book"), ASPEN maker/taker limit order book, and ASPEN taker/maker limit

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[19]   See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37549 (June 29, 2005)
         ("NMS Adopting Release").

[20]   See id.

[21]   See Notice, supra note 3, at 79401.

[22]   According to FINRA, there have been no ADF participants since the first quarter of 2015. See id.

[23]   See Form ATS-N Filings and Information page on the Commission's website, at
         https://www.sec.gov/divisions/marketreg/form-ats-n-filings.htm.

order book (collectively, "IntelligentCross ASPEN").[24] FINRA states that the ASPEN Fee/Fee

book would be the only order book displaying orders on the ADF.[25]

IntelligentCross provided FINRA with a summary of its policies and procedures

regarding access to its quotations in an NMS stock displayed on the ADF, and a summary of its

proposed fees for such access.[26] Based on IntelligentCross' representations, FINRA believes that

IntelligentCross' proposed level and cost of access to quotations on the ASPEN Fee/Fee book is

substantially equivalent to the level and cost of access to quotations displayed by an SRO trading

facility, both in absolute and relative terms.[27] FINRA also believes that the quotations displayed

on ASPEN Fee/Fee book would meet the definition of an "automated quotation" under

Regulation NMS.[28]

In particular, FINRA states that IntelligentCross only permits registered broker-dealers to

be subscribers to IntelligentCross, and subscribers can interact with the ASPEN Fee/Fee book

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[24] See Notice, supra note 3, at 79402. FINRA states that all three IntelligentCross ASPEN order books act independently of each other (i.e., orders resting in one book do not rest on or interact with orders resting in another book). See id. In addition to IntelligentCross ASPEN, FINRA states that IntelligentCross also operates a midpoint book that only accepts non-displayed midpoint orders, which is distinct from and does not interact with the IntelligentCross ASPEN. See id. at n.17. All activity on IntelligentCross is identified and reported under the "INCR" market participant identifier ("MPID"). See id. at 79402.

[25] See id. at 79402. FINRA states that the "effective date" of the Proposal would be the date of the Commission's approval. See id. at 79404.

[26] See id. at 76341.

[27] See id. at 79404, n.37.

[28] See id. at 79403.

using conventional order types.[29] The ASPEN Fee/Fee book will accept incoming intermarket

sweep orders ("ISOs")[30] once it displays orders on the ADF.[31]

FINRA states that the ASPEN Fee/Fee book establishes a matching schedule[32] using an

overnight optimization process based on historical performance measurements from prior days'

matches across all three IntelligentCross ASPEN books.[33] The match event time is randomized

within the time band throughout the course of the trading day and any order that arrives prior to a

match event (and that has not been cancelled, become unmarketable, or repriced)[34] is eligible to

participate in the next match event for that security.[35]

IntelligentCross has represented to FINRA that, in the following cases, an incoming order

on ASPEN Fee/Fee book may not execute against a resting order at match event time when: (i)

an existing resting order cancels prior to the next match event; (ii) an incoming order is cancelled

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[29]   See id. at 79402. FINRA states that the ASPEN Fee/Fee book accepts limit orders with optional display instructions, IOC orders, and pegged orders (which are treated as regular orders with an automated repricing to the national best bid or offer ("NBBO")). See id. Only limit orders and primary peg orders (with or without a limit price) are eligible to be displayed on the ASPEN Fee/Fee book, and therefore on the ADF. See id.

[30]   17 CFR 242.600(b)(38).

[31]   See Notice, supra note 3, at 79402. IntelligentCross has represented to FINRA that the ASPEN Fee/Fee book will be the only IntelligentCross ASPEN order book that will accept ISOs. See id. at 79402, n.22.

[32]   See id. at 79402. FINRA states that the ASPEN Fee/Fee book match schedules are defined by minimum/maximum time bands for each security, and these bands can have a minimum time of 150 microseconds and a maximum time of 900 microseconds. See id. For example, on a particular day, the match event band for XYZ stock may have a minimum time of 450 microseconds and a maximum time of 600 microseconds. See id.

[33]   See id.

[34]   See id.

[35]   See id. at 79402. According to FINRA, IntelligentCross has represented that both sides of the trade (buyers and sellers) are on equal footing for the next scheduled match event, while maintaining full control of their orders, i.e., both sides can cancel or update their orders at any time prior to the match. See id. at n.24. In addition, the ASPEN Fee/Fee book automatically updates its quotations, and all quotation updates, including those due to new or cancelled orders, are immediate. See id.

prior to the next match event; (iii) the NBBO moves between the time an order is received and the next match event takes place, making either the incoming order or the resting order non-marketable; or (iv) the NBBO changed before the next match event and pegged orders were repriced to the new NBBO, making the incoming order or the resting pegged order non-marketable.[36]

FINRA states that the ASPEN Fee/Fee book's matching engine operates near-continuously and that, when a new order arrives in the ASPEN Fee/Fee book, it would participate in the next scheduled match event by interacting with existing orders in the order book within a maximum time capped at 900 microseconds.[37]

FINRA states that for each match event time, the ASPEN Fee/Fee book retrieves the NBBO and processes all the orders that have arrived and have not been cancelled in price-time priority.[38] No subscriber to IntelligentCross (or non-subscriber accessing IntelligentCross through a subscriber) is given any priority through the matching process and the matching process is blind to the identity of the subscriber.[39] All matches are reported immediately to

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[36]   See id. at 79402, n.23. IntelligentCross has represented to FINRA that non-match events on the ASPEN Fee/Fee book occur in a minority of cases. See id. at 79403. For a more detailed discussion of examples regarding situations where an incoming order may not execute against a resting order at match event time, see id. at 79403.

[37]   See id. at 79403. FINRA states that the quotations displayed on the ASPEN Fee/Fee book are handled on an automated basis and that there is no human discretion in determining any action taken with respect to an order after the order is received. See id.

[38]   See id. FINRA states that IntelligentCross uses a combination of SIP and proprietary direct feeds from national securities exchanges to determine the NBBO and protected quotes, and to price executions. See id. at 79402, n.27.

[39]   See id.

subscribers and the SIPs via a FINRA trade reporting facility and disseminated on

IntelligentCross' market data feed.[40]

FINRA further states that IntelligentCross utilizes a fee/fee pricing model for activity on

the ASPEN Fee/Fee book where both sides are charged the same fee[41] for transactions.[42]

Eligible displayed orders are published via a free market data feed ("IQX Market Data Feed").[43]

IntelligentCross does not charge connectivity fees to its subscribers.[44] FINRA states that firms

wishing to access liquidity on the ASPEN Fee/Fee book may connect in a variety of ways.[45]

Firms that are IntelligentCross subscribers can connect to the ASPEN Fee/Fee book via a

Financial Information Exchange ("FIX") connection.[46] Such access is available to subscribers

through an internet protocol address via communications that are compliant with the FIX

application programming interface ("API") provided by IntelligentCross.[47] IntelligentCross does

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[40] See id.

[41] See id. at 79404. FINRA states that the IntelligentCross' fee schedule is published in the IntelligentCross Form ATS-N and advance notice is provided to its subscribers prior to a pricing change. See id.

[42] See id. FINRA states that the base rate charged by IntelligentCross is $0.0008 per share for each side of a transaction on the ASPEN Fee/Fee book. See id.

[43] See id. IntelligentCross has represented to FINRA that displayed orders from all three IntelligentCross ASPEN order books are available in the IQX Market Data Feed. See id. at 79402, n.28.

[44] See id. at 79404. IntelligentCross has represented to FINRA that it is not involved in the installation of cross-connects; thus, subscribers must establish a relationship directly with the network service provider in NY4. See id. Further, IntelligentCross does not currently charge connectivity fees to access the ASPEN Fee/Fee book and has offered to pay for certain of subscribers' cross-connect fees at NY4. See id. In particular, IntelligentCross currently covers payment for one primary connection and one back-up connection, and any direct subscriber is eligible for this payment. See id. IntelligentCross' network provider and other similar network providers may charge fees relating to connectivity in NY4. See id. IntelligentCross has represented to FINRA that any such connectivity fees would be substantially equivalent to the costs to connect to any other trading center, such as an exchange. See id.

[45] See id.

[46] See id.

[47] See id.

not accept orders via any other forms of communication (e.g., telephone, email, instant message).[48] IntelligentCross allows a subscriber to determine its level of connectivity and does not tier or discriminate among subscribers.[49]

Additionally, FINRA states that IntelligentCross has established and maintains policies and procedures related to periodic system capacity reviews and tests to ensure future capacity, as well as policies and procedures to identify potential weaknesses and reduce the risks of system failures and threats to system integrity.[50] FINRA also states that, for purposes of displaying orders through the ADF, IntelligentCross' policies and procedures require continuous monitoring of the ASPEN Fee/Fee book's connections with an SRO display-only facility and, in the event that the ASPEN Fee/Fee book loses connection with the ADF, IntelligentCross has contingency plans in place, including removing (i.e., "zeroing out") all quotes previously published by the system to the ADF and notifying its subscribers of such interruption.[51]

In the event that IntelligentCross makes a material change to the policies and procedures governing access to IntelligentCross, including a change to its fees, IntelligentCross has represented to FINRA that it will submit the changes made to FINRA, and acknowledges that FINRA will post on its website an amended description of IntelligentCross' policies, procedures and fees governing access.[52]

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[48]   See id.

[49]   See id.

[50]   See id.

[51]   See id.

[52]   See id. at 79404, n.43.

Finally, FINRA states that all members in good standing of an SRO would be eligible to

become a subscriber to the ASPEN Fee/Fee book and would be subject to eligibility

requirements set by IntelligentCross.[53]

III.   Discussion and Commission Findings

After careful review, the Commission finds that the proposed rule change is consistent

with the requirements of the Exchange Act and the rules and regulations thereunder applicable to

a national securities association.[54] Specifically, the Commission finds that the proposed rule

change is consistent with the provisions of Section 15A(b)(6) of the Exchange Act,[55] which

requires, among other things, that FINRA rules must be designed to prevent fraudulent and

manipulative acts and practices, to promote just and equitable principles of trade, and, in general,

to protect investors and the public interest. The Commission also finds that the proposed rule

change by FINRA to allow IntelligentCross to operate as an ADF participant is consistent with

Rule 610(b) of Regulation NMS,[56] which requires that any trading center that displays quotations

in an NMS stock through an SRO display-only facility (such as the ADF) provide a level and

cost of access to such quotations that is substantially equivalent to the level and cost of access to

quotations displayed by an SRO trading facility in that stock, and not impose unfairly

discriminatory terms that would prevent or inhibit any person from obtaining efficient access to

such quotations through a member, subscriber, or customer of the trading center. In addition, the

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[53]   See id. at 79405.

[54]   In approving the proposed rule change, the Commission has considered the proposed rule's impact on
efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[55]   15 U.S.C. 78o-3(b)(6).

[56]   See 17 CFR 242.610(b).

Commission finds that IntelligentCross would operate as an automated trading center, in compliance with Rule 600(b)(7) of Regulation NMS,[57] such that its quotations would be "automated" under Rule 600(b)(6),[58] and thus "protected" under Rule 611 of Regulation NMS.[59]

The Commission received several comment letters opposing the Proposal,[60] a comment letter supporting the Proposal,[61] and responses by FINRA and IntelligentCross.[62] Commenters opposing the Proposal generally state the Proposal lacks sufficient detail necessary for the Commission to approve the Proposal and raise concerns about whether the Proposal: (1)

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[57] See 17 CFR 242.600(b)(7).

[58] See 17 CFR 242.600(b)(6).

[59] See 17 CFR 242.611. Rule 611(a)(1) requires a trading center to establish, maintain and enforce written policies and procedures that are reasonably designed to prevent trade-throughs on the trading center of protection quotations. 17 CFR 242.611(a)(1).

[60] See Letter from Tyler Gellasch, President and CEO, Healthy Markets Association, dated January 13, 2023 ("Healthy Markets Letter"); Letter from Brett Kitt, Associate Vice President & Principal Associate General Counsel, Nasdaq, Inc., dated January 17, 2023 ("Nasdaq Letter"); Letter from Joanna Mallers, Secretary, FIA Principal Traders Group, dated January 17, 2023 ("FIA PTG Letter"); Letter from Stephen John Berger, Managing Director, Global Head of Government & Regulatory Policy, Citadel Securities, dated January 23, 2023 ("Citadel Letter"); Letter from Ellen Greene, Managing Director, Equities & Options Market Structure, SIFMA, dated February 8, 2023 ("SIFMA Letter"); Letter from Joanna Mallers, Secretary, FIA Principal Traders Group, dated March 8, 2023 ("FIA PTG Letter II"); Letter from Tyler Gellasch, President and CEO, Healthy Markets Association, dated March 14, 2023 ("Healthy Markets Letter II"); Letter from John Ramsay, Chief Market Policy Officer, Investors Exchange LLC, dated April 14, 2023 ("IEX Letter"); Letter from Stephen John Berger, Managing Director, Global Head of Government & Regulatory Policy, Citadel Securities, dated May 4, 2023 ("Citadel Letter II"); Letter from Stephen John Berger, Managing Director, Global Head of Government & Regulatory Policy, Citadel Securities, dated August 3, 2023 ("Citadel Letter III"); Letter from John Ramsay, Chief Market Policy Officer, Investors Exchange LLC, dated August 4, 2023 ("IEX Letter II").

[61] See Letter from Nataliya Bershova, Head of Execution Research, Sanford C. Bernstein & Co., LLC, dated January 17, 2023. This commenter states that adding IntelligentCross' displayed liquidity to the public quote would enable market participants to interact with better prices, enhance price discovery, and minimize pricing errors. See id.

[62] See Letter from Faisal Sheikh, Assistant General Counsel, FINRA, dated March 13, 2023 ("FINRA Letter"); Letter from Faisal Sheikh, Assistant General Counsel, FINRA, dated August 22, 2023 ("FINRA Letter II"); Letter from Ari Burstein, General Counsel, Imperative Execution, dated February 16, 2023 ("IntelligentCross Letter"); Letter from Ari Burstein, General Counsel, Imperative Execution, dated July 14, 2023 ("IntelligentCross Letter II"); Letter from Ari Burstein, General Counsel, Imperative Execution, dated August 18, 2023 ("IntelligentCross Letter III").

complies with the requirements of Regulation NMS; (2) should contain additional processes for

the ongoing operations of IntelligentCross while it is an ADF participant; (3) provides a

sufficient implementation period for the industry to adopt changes due to the addition of

IntelligentCross as an ADF participant; and (4) has provided information that the ADF has

appropriate technological infrastructure.[63]

    1.   Compliance with Regulation NMS and Ongoing Obligation to File

        a.   Definition of Automated Quotation and Protected Quote Status

As discussed above, FINRA believes that the quotations displayed on the ASPEN

Fee/Fee book would meet the definition of an "automated quotation" under Regulation NMS,[64]

and thus "protected" under the Order Protection Rule.[65]

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[63]   In particular, one commenter states that the Commission should reconsider and withdraw the Commission Interpretation of Automated Quotations. See Citadel Letter at 1-4, 8 (stating, among other things, that the Commission Interpretation of Automated Quotations is "inconsistent with the plain text of Regulation NMS and therefore invalid"); Citadel Letter II at 3; Citadel Letter III at 2, n.11. Some commenters question the appropriateness of the ADF in today's market structure, including the need for the ADF given the number of exchanges and active non-display ATSs in the marketplace. See Nasdaq Letter at 2; Healthy Markets Letter at 8; IEX Letter at 10. One commenter recommends that the Commission should consider "whether the ADF is still needed or should be eliminated entirely." Nasdaq Letter at 1, 3 (stating that the ADF "continues to exist in form only, while serving no productive function"). One commenter raises general questions regarding the potential impact to competing consolidators of adding IntelligentCross protected quotes after the implementation of the Commission's Market Data Infrastructure Rule. See IEX Letter at 9. Finally, some commenters state that approval of the Proposal may undermine the recent Commission proposals to modernize equity market structure. See Healthy Markets Letter at 16; Nasdaq Letter at 2. One of these commenters also questions how recent proposed reforms to Rule 605 of Regulation NMS would apply to the Proposal, particularly in relation to the single MPID that IntelligentCross uses to identify and report its transaction activity. See Healthy Markets Letter at 5, 16. These comments raise issues that are beyond the scope of the Commission's consideration of whether the present Proposal is consistent with the Exchange Act and the rules and regulations thereunder.

[64]   See Notice, supra note 3, at 79403.

[65]   17 CFR 242.611. Rule 611(a)(1) requires a trading center to establish, maintain and enforce written policies and procedures that are reasonably designed to prevent trade-throughs on the trading center of protection quotations. 17 CFR 242.611(a)(1).

Some commenters raise concern that IntelligentCross' displayed quotations do not meet

the Commission's definition of "automated quotations" due to the intentional delay built into

IntelligentCross' delayed matching process.[66] In particular, some commenters state that the

Proposal does not demonstrate how the intentionally delayed matching process is de minimis.[67]

Some commenters state that the Proposal wrongly assumes that any delay under a millisecond is

de minimis.[68] One commenter questions whether IntelligentCross' delayed matching process

"frustrates the purposes of Rule 611 by impairing fair and efficient access" as required by the

Commission Interpretation of Automated Quotations.[69]

In response, IntelligentCross states that its matching process is consistent with the

Commission Interpretation of Automated Quotations.[70] IntelligentCross states that, while the

Commission did not establish a "bright line de minimis threshold," the ASPEN Fee/Fee book's

matching engine "operates near-continuously and when a new order arrives in the ASPEN

Fee/Fee book, it will participate in the next scheduled match event by interacting with existing

orders in the order book within a maximum time capped at 900 microseconds."[71] The

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[66]   See Citadel Letter at 1; SIFMA Letter at 3; FIA PTG Letter at 1-2; FIA PTG Letter II at 1-2; Nasdaq Letter at 2; Healthy Markets Letter at 13; Citadel Letter II at 1; Citadel Letter III at 1.

[67]   See Citadel Letter at 1; FIA PTG Letter at 1-2; FIA PTG Letter II at 1-2; SIFMA Letter at 4; Citadel Letter III at 2.

[68]   See Citadel Letter at 4; FIA PTG Letter at 2; Citadel Letter II at 3; Citadel Letter III at 2.

[69]   See Citadel Letter at 3; Citadel Letter II at 5; Citadel Letter III at 4.

[70]   See IntelligentCross Letter at 9.

[71]   Id. FINRA also highlights the overall record of the Proposal, including the information and analysis provided by FINRA in the Notice and the letters by FINRA and IntelligentCross responding to comments regarding the qualification of IntelligentCross' quotes as "protected quotations" under Regulation NMS. See FINRA Letter II at 3. Accordingly, FINRA states that the "Commission has available detailed information regarding IntelligentCross' operations and the nature of its quotations that is sufficient to enable the Commission to make a substantive determination regarding whether FINRA's rule filing to add IntelligentCross as an ADF participant is consistent with the Exchange Act." Id. at 3.

Commission also disagrees with commenters who assert that as a result of IntelligentCross'

matching system, quotations displayed on the ASPEN Fee/Fee book would not meet the

definition of an "automated quotation" under Regulation NMS. The Commission issued a final

interpretation that, when determining whether a trading center maintains an "automated

quotation" for purposes of Rule 611 of Regulation NMS, the term "immediate" in Rule 600(b)(6)

precludes any coding of automated systems or other type of intentional device that would delay

the action taken with respect to a quotation unless such delay is de minimis – i.e., so short as to

not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's

quotations.[72] In accordance with that interpretation, the Commission does not believe that

IntelligentCross' delayed matching functionality precludes IntelligentCross from maintaining an

automated quotation. Because the delay imposed by IntelligentCross is well within geographic

and technological latencies experienced today that do not impair fair and efficient access to an

exchange's quotations or otherwise frustrate the objectives of Regulation NMS, the Commission

believes that such intentional delay will not frustrate the purposes of Regulation NMS by

impairing fair and efficient access to IntelligentCross' quotations.[73] Accordingly, the delay in

IntelligentCross' matching functionality (a randomized delay of up to 900 microseconds) is de

minimis and thus IntelligentCross can maintain a protected quotation.[74]

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[72]   See Commission Interpretation of Automated Quotations, supra note 15.

[73]   See Citadel Secs., 45 F.4th at 37 (upholding Commission's determination that a 350-millisecond delay was de minimis, noting that it was "similar to the delay that traders' communications already experience when traveling between various other exchanges across the country").

[74]   See Commission Interpretation of Automated Quotations, supra note 15.

One commenter states that the "novel features" of the Proposal have not been adequately assessed to provide the Commission with sufficient basis to make an affirmative finding that the Proposal is consistent with the Exchange Act.[75] One commenter states that IntelligentCross should provide additional transparency on the operation of its matching process.[76] This commenter states that all markets, including ATSs and registered exchanges, "should be subject to an equivalent level of transparency and review" regarding "how their quotes may be accessed and displayed and how executions involving those quotes may occur."[77] This commenter also states that market participants need enough information "so that those who wish to do so can replicate how the mechanism will affect results in various market conditions."[78] Additionally,

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[75] See Citadel Letter at 4. This commenter states that the "required assessment of whether or not an intentional delay is de minimis must consider the impact of the intentional delay on fill rates and execution quality and whether it operates to frustrate the purposes of Rule 611 by impairing fair and efficient access to displayed quotations." Id. at 8. The commenter further states that based on the data presented in the Proposal, "nearly 9% of executable transactions do not occur" because of the reasons described by the commenter in its letter, which the commenter states is "certainly not de minimis." Id. The commenter also states that granting "protected quotation" status for the first time to a matching process that uses discrete match events would treat the IntelligentCross displayed quote as equivalent to those on other market centers, even though the matching of counterparties and the execution of transactions only occurs after the match event is conducted. Id. at 7. See also Citadel Letter II at 9 (stating that the Proposal does not contain any analysis as to the whether the intentional delay may be inconsistent with Exchange Act Section 15A(b)(6) or Rule 610(b)(2) of Regulation NMS); IEX Letter II at 1 (stating that there are "meaningful differences between the matching process proposed to be used by IntelligentCross and the processes used by all other markets with protected quotes today.").

[76] IEX Letter at 2; IEX Letter II at 2. This commenter states that there should be additional transparency on the "specific inputs and the formula(s) applied" and the "technology or methods used to apply the randomized delay within the timebands." Id. at 2-3. One commenter states that "FINRA must provide all necessary information and analysis in its own proposal so that the 'public [can] provide meaningful comment' on FINRA's analysis." Citadel Letter III at 3.

[77] IEX Letter at 3. See also IEX Letter II at 3-4 (contrasting the Proposal's level of disclosures on the IntelligentCross matching process with a recent exchange proposed rule change on a new order type and noting that a matching process driven by "artificial intelligence" requires further inquiry and disclosure, especially in the application of displaying and accessing protected quotations).

[78] IEX Letter II at 4 ("Specifically, [market participants] would not know the amount of time to account for in 'staggering' the routing of their orders to IntelligentCross. If they send individual orders to arrive on all markets simultaneously, the order to IntelligentCross will be subject to a maximum delay of 900 microseconds. If the execution of the IntelligentCross order were delayed substantially longer than the

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this commenter states that it is unclear whether market participants could alter their routing

strategies to account for IntelligentCross' "randomized delay in the same way they can account

for static and geographic delays."[79] Similarly, another commenter states that the randomized

nature of the matching process "creates significant challenges for best execution for brokers" and

prevents "predictable staging of order sending activity by brokers across multiple venues,"

resulting in "significant risk of material information leakage and quote fading – leading to

materially worse execution quality for investors."[80]

One commenter raises concerns about the relative ability of different market participants

to react to market price movements in deciding whether to cancel after their orders have been

accepted by the IntelligentCross system and during the delay before execution.[81] This

commenter believes that some "participants could use their superior ability to track price changes

on other markets within the variable delay period to determine whether to cancel their orders."[82]

This commenter asserts that this is a unique challenge that market participants do not face in

managing the orders that they send to other protected quote venues.[83]

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minimum time required to receive execution reports from other markets, this could allow fast market
participants to cancel resting orders on IntelligentCross before the execution could occur.").

[79]   IEX Letter at 6.

[80]   See Healthy Markets Letter at 14. This commenter also states, without identifying specifics, that the
delayed randomized match creates "some challenges regarding the operation of ISOs." See id. at 4. See
also Healthy Markets Letter II at 4; Citadel Letter at 6-7 (stating that market participants could have
difficulty adopting routing strategies to account for IntelligentCross' randomized intentional delay); Citadel
Letter III at 6-7 (stating that the randomized intentional delay "makes it practically impossible for market
participants to stagger order routing such that orders are executed at IntelligentCross and other venues at
precisely the same time"); IEX Letter II at 2 (stating that the matching process used by IntelligentCross is
"relatively opaque and unpredictable compared to other markets with protected quotes").

[81]   See IEX Letter II at 4.

[82]   See id. at 5.

[83]   See id. at 4.

Some commenters state that the ability for liquidity providers to cancel displayed ADF

orders through IntelligentCross' functionality at any time raises questions about whether its

functionality is consistent with Regulation NMS and prior Commission guidance.[84] For

example, some commenters state that they are concerned that a resting limit order could be

cancelled at any time (even after the incoming order is received) prior to the match, including

when such incoming orders are routed to IntelligentCross consistent with regulatory obligations

under the Order Protection Rule.[85] One commenter states, according to data it compiled on

typical routing latencies using fiber infrastructure between datacenters, a liquidity provider on

IntelligentCross has ample time to observe the trades executed on other U.S. equities exchanges

before determining whether to cancel its own resting order.[86] The commenter states that this

option to cancel benefits liquidity providers on IntelligentCross at the expense of liquidity takers

and hurts market competition across venues.[87] The commenter further states that the non-match

event data stated in the Proposal is a "material" figure that "likely understates expected

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[84]   See SIFMA Letter at 3-4. See also Citadel Letter II at 6 (stating that "[t]he displayed quotations on IntelligentCross are 'maybe' quotations that do not provide market participants with execution certainty. As a result, it would frustrate the purposes of Rule 611 to provide trade-through protection to these manual quotations on IntelligentCross."); Citadel Letter III at 5.

[85]   See SIFMA Letter at 3-4; Citadel Letter at 4. One of these commenters discusses prior SRO proposals considered by the Commission that raised similar concerns related to asymmetrical "speed bumps" in which one of the orders and/or messages on one side of the market are subject to a delay whereas others are not. See SIFMA Letter at 3. See also Citadel Letter II at 8 (stating that the IntelligentCross intentional delay resembles an asymmetric delay and, as a result, the Proposal warrants further scrutiny "to determine whether any discrimination is unfair and, therefore, inconsistent with the Exchange Act"); Citadel Letter III at 4.

[86]   See Citadel Letter III at 6.

[87]   See id. at 6. This commenter also states that "geographical and technological latencies are applicable to all market participants and do not provide liquidity providers with a clear structural advantage – namely, the option to cancel a displayed quote after an incoming order reaches the IntelligentCross matching engine." Id. at 8.

cancellation rates" if market participants are required to route order flow to IntelligentCross.[88]

Another commenter states that order posters in the ASPEN Fee/Fee book have the ability to

immediately cancel their orders, whereas order transmitters seeking to interact with that interest

at the NBBO do not have the same ability to cancel their orders due to their regulatory obligation

to attempt to access the protected quote.[89] One commenter asserts that the IntelligentCross

"price-sliding" mechanism to avoid locking its own market can result in quotations that may be

"impossible to access" for incoming orders.[90] Another commenter states that the Proposal "lacks

basic information, such as whether the speed bump is symmetric or asymmetric and how it

operates in practice."[91] One commenter states that it has concerns about IntelligentCross

creating a new protected NBB or NBO for orders that are pending a match and for which new,

incoming orders will be "very likely inaccessible."[92] The commenter provides a hypothetical

example to support its assertion where, after a number of events occur in the markets, the NBBO

is made up solely of two 100 share orders on IntelligentCross such that, if another market

participant responded to the quote, the new participant would be sequentially added to the queue

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[88]   See Citadel Letter at 5. This commenter further states that IntelligentCross fails to consider that the execution experience on IntelligentCross may be far worse than advertised, and may explain why more orders are not routed to the venue. See Citadel Letter III at 7. See also IEX Letter at 6 (requesting more transparency on how often cancellations might occur if IntelligentCross were to maintain a protected quote); Citadel Letter III at 8 (stating that the statistics cited by IntelligentCross are only based on its current status as a non-protected quotation venue where market participants are not required to route to IntelligentCross and its unclear the impact that granting IntelligentCross protected quotation status would have on those figures).

[89]   See SIFMA Letter at 3. This commenter states that areas to explore in addressing its concerns with the Proposal could include "instituting a delay regarding the ability to cancel a posted order that mirrors the delay for incoming orders seeking to interact with that posted order or removing the delay on incoming ISO / IOC orders attempting to access the ADF protected quote." Id. at 4, n.10.

[90]   Citadel Letter III at 3.

[91]   FIA PTG Letter at 2.

[92]   See FIA PTG Letter II at 2; see also Citadel Letter II at 5-6.

and would not trade.[93] Another commenter requests more transparency on how the consolidated

market data feeds would reflect the state of IntelligentCross' protected quotes.[94]

In its response letters, IntelligentCross states that it disagrees with the characterizations

made by commenters of the IntelligentCross matching process.[95] Specifically, IntelligentCross

states that its matching process is "completely symmetric in nature and does not favor a

particular side of the trade; there is no differential treatment of certain market participants."[96]

IntelligentCross states that both sides – the buyer and the seller – "can cancel or update their

orders at any time prior to a match" and "must equally wait for the next scheduled match event to

occur."[97] It states that no information is provided to any market participant regarding the status

(or existence) of the matchable state or the match event.[98] IntelligentCross also emphasizes that

the regulatory obligations attendant to "protected quotations" under Regulation NMS do not

provide a guarantee of an execution.[99] Accordingly, IntelligentCross states that a market

participant that routes an order to any market with the intention of matching against a displayed

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93   See FIA PTG Letter II at 2. IntelligentCross responds that the specific example the commenter illustrates,
        while possible to occur, is nonetheless extremely unlikely, according to their most recent calculations based
        on observations on the IntelligentCross platform. Specifically, in June 2023, the daily average incidence of
        such a hypothetical was 158 times in the course of 45 million orders, i.e., 0.00035 percent of the time. See
        IntelligentCross Letter II at 7.

94   See IEX Letter at 8; IEX Letter II at 5.

95   See IntelligentCross Letter at 3; IntelligentCross Letter II at 3.

96   See IntelligentCross Letter at 4. IntelligentCross further states that both the taker and maker "are on equal
        footing for the next scheduled match while maintaining full control of their orders, and both sides of the
        trade must wait equally for the next scheduled match event to occur." IntelligentCross Letter II at 5.

97   IntelligentCross Letter at 4.

98   IntelligentCross Letter III at 4.

99   IntelligentCross Letter at 4

order may not ultimately receive an execution.[100] Moreover, IntelligentCross disagrees with a commenter's statement that non-match events on IntelligentCross are "material"[101] and states that there is no evidence to the effect that non-match rates would increase if market participants are required to route order flow to IntelligentCross.[102] IntelligentCross states that "it is just as likely that cancellations will decrease" as "the IntelligentCross order book will be in a matchable state more frequently."[103]

IntelligentCross also disagrees with commenters[104] that express concern regarding the ability for liquidity providers to cancel their order in IntelligentCross prior to a match event and believe it to be detrimental to the markets and investors.[105] IntelligentCross' stated purpose is to provide a "venue that optimizes price discovery, achieves maximum price stability after trades, and provides an opportunity for market participants to improve performance and achieve best execution by reducing market impact and adverse selection."[106] IntelligentCross points to its own user experience on the platform, and data specifying that "in January 2023, ASPEN Fee/Fee [book] improved the NBBO over 5.3 million times per day (for orders of round-lot size or larger

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[100]   Id. IntelligentCross also states that, in the case of ISOs, commenter "concerns are misplaced as once the ISO is sent to a trading center displaying a protected quotation, a broker's obligations under the Rule 611 have been met." Id. at 5. IntelligentCross also states that "[t]he fact that a market participant may not receive an execution when routing to a market is not unique to IntelligentCross and is not indicative of the absence of fair and efficient access." IntelligentCross Letter II at 4.

[101]   See supra note 88.

[102]   IntelligentCross Letter at 8.

[103]   Id.

[104]   See supra notes 84-87 and accompanying text.

[105]   IntelligentCross Letter at 5.

[106]   See id. at 1.

on arrival)."[107] Additionally, IntelligentCross states that any "trade-offs" due to the manner of

IntelligentCross' matching process "certainly do not frustrate the purpose of Regulation NMS by

impairing fair and efficient access to IntelligentCross' displayed quotations."[108] IntelligentCross

also states that in the scenario where the NBBO moves between the time an order is received and

the next match event takes place, depending on the direction the NBBO moves, the liquidity

taker may end up better off not executing at the old NBBO.[109] Additionally, the "price sliding

mechanism" raised by one commenter[110] is designed to address Rule 610 requirements to

establish, maintain, and enforce specific written rules that are generally aimed at limiting the

display of quotations that lock or cross any protected quotations in an NMS stock.[111] Moreover,

IntelligentCross states that there is no basis for the assumption by a commenter[112] that there is a

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[107]   Id.

[108]   Id. at 6.

[109]   See id. at n. 24. See also id. at 7 (stating that "[t]he determination of fair and efficient access should not be about protecting the economic interests of one particular group of market participants or impeding innovation or the introduction of competition to protect the exchange status quo"); IntelligentCross Letter III at 4 (stating that "[a] point that either has been misunderstood by commenters or effectively ignored in comments is that a market participant who sends an order to IntelligentCross does not know how much time remains before a match event may occur, and therefore how long they have – whether they are a maker or taker – to cancel or amend their order").

[110]   See supra note 90.

[111]   See IntelligentCross Letter II at 10 ("In ASPEN, if a displayed Limit Order or Primary Peg Order would lock or cross displayed contra-side interest inside the ATS or the NBBO, such order will be displayed one minimum price variation less aggressive than the price of the displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of displayed contra-side interest inside the ATS or as part of the NBBO. In the event the displayed contra-side interest inside the ATS or the NBBO updates, such order's displayed price will be updated to the most aggressive price permissible without locking displayed contra-side interest inside the ATS or as part of the NBBO, up to the order's limit price, and such order's ranked price will be updated to the most aggressive price permissible without crossing displayed contra-side interest inside the ATS or as part of the NBBO, up to the order's limit price."). See also FINRA Rule 6240 (Prohibition from Locking or Crossing Quotations in NMS Stocks).

[112]   See supra note 80 and accompanying text.

significant risk of information leakage and quote fading due to an IntelligentCross protected quote.[113]

With respect to commenter concerns regarding "speed" in the markets related to the ability to cancel on IntelligentCross,[114] IntelligentCross states that speed advantages already exist for faster market participants related to executions on all markets, including those currently with protected quotations such as exchanges.[115] Accordingly, Intelligent states that "it is unrealistic to claim that there is no speed advantage across all trading markets, including on continuous exchange markets."[116]

With respect to commenter concerns regarding "predictability" and the ability for market participants to "replicate" the matching process due to the randomization of the matching delay,[117] IntelligentCross responds that the randomization of the matching process "is what contributes to [the] matching process not discriminating in favor of a particular market

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[113]   See IntelligentCross Letter at 6. For the proposition that its system is designed to provide for best execution, IntelligentCross states that in the past year, it has grown from 70 basis points of the market on average in January 2022 to 110 basis points during January 2023. See id. In addition, IntelligentCross reached its highest daily market share versus total consolidated volume on June 6, 2023 at 146 basis points and has averaged over 124 basis points daily for the first six months of 2023. See IntelligentCross Letter II at 2. IntelligentCross also states that, for displayed orders in S&P 500 stocks, quotations in the ASPEN Fee/Fee book were available strictly inside the NBB/NBO more than 12 percent of the time, with an average improvement of over 2.5 basis points, and for displayed orders in Russell 3000 stocks and the top 100 ETFs, bids and offers strictly inside the NBB/NBO were available over 9 percent of the time, with an average improvement of over 10 basis points. See id.

[114]   See supra notes 81-83 and accompanying text.

[115]   See IntelligentCross Letter II at 6.

[116]   Id.

[117]   See supra notes 78 and 80 and accompanying text.

participant or category of participants, and also makes any would-be manipulation of the matching process difficult by reducing the potential for 'systematical gaming.'"[118]

In addressing commenter concerns regarding any difficulties for market participants to adapt to an IntelligentCross protected quote,[119] IntelligentCross states it is already widely used by most major broker-dealer and electronic trading firms.[120] IntelligentCross states that these firms and others "make routing decisions every day in response to the numerous order types already in place by exchanges, as well as implement a plethora of routing strategies to interact with, and respond to, the displayed liquidity in the markets."[121] IntelligentCross further states that "brokers must currently consider and account for technological and geographic differences and latencies when routing."[122] Additionally, IntelligentCross points to the "technological capabilities of order routers today" and believes that a market participant "should not have difficulties in configuring their routers to adopt to the IntelligentCross matching process."[123] IntelligentCross states that market participants already use "tools to manage order routing and repricing on the scale of hundreds of microseconds" such as "mechanisms that adapt to the

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[118] IntelligentCross Letter III at 4.

[119] See supra notes 78-80 and accompanying text.

[120] See IntelligentCross Letter at 2, 7.

[121] IntelligentCross Letter at 7. IntelligentCross also states that randomizing the match frequency provides benefits to both sides of a trade by, for example, reducing the potential for "gaming," which can impede the process for achieving best execution. See id. at n.28.

[122] Id. at 7. IntelligentCross states that the "speed of a trader's software, telecommunication resources, geography, and the number of ports purchased from an exchange" are all factors that "can affect outcomes as much as (if not more than) any actual delay mechanism." IntelligentCross Letter II at 6.

[123] IntelligentCross Letter at 7. For example, IntelligentCross states that its matching process "does not prevent market participants" from adopting "staggering" order routing strategies or employing "tools that already exist to assist in the 'predictable staging' of order sending activity across multiple venues." IntelligentCross Letter II at 5-6.

changing technology on trading venues," including adaptations that address delay periods.[124]

Accordingly, IntelligentCross believes that any market participants should be able to account for

the IntelligentCross protected quote without significant or material changes to its technology and

without adopting any change that would frustrate the purposes of Regulation NMS.[125]

In response to questions regarding how IntelligentCross protected quotes would be

reflected in consolidated market data feeds,[126] IntelligentCross states that it will provide any

quotes or quote updates to the ADF no later than when it is disseminated via the IQX Market

Data Feed.[127] In response to commenter questions regarding additional transparency of the

matching process,[128] IntelligentCross states that it publicly posts its Form ATS-N disclosures on

EDGAR.[129] IntelligentCross also states that in calculating its matching schedules, the firm uses

an "overnight optimization process" that uses, among other things, historical performance

measurements from prior days' matches, and each security has an individualized matching

schedule.[130] IntelligentCross further states that it has policies and procedures in place to oversee

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[124]   See IntelligentCross Letter II at n.23.

[125]   IntelligentCross Letter at 2, 7. IntelligentCross also states that none of the commenters identify "any basis
          under current regulations or from a practical standpoint why they would not be able to adjust and account
          for the IntelligentCross matching process." Id. at 7-8.

[126]   See supra note 94 and accompanying text.

[127]   IntelligentCross Letter II at 7.

[128]   See supra note 76 and accompanying text.

[129]   IntelligentCross Letter II at 11 (additionally reiterating arguments made in the Proposal).

[130]   Id. at 11 ("The match event intervals per security are adjusted overnight after enough data points have been
          accumulated to warrant an adjustment, and each match event interval is designed to achieve two objectives:
          (1) provide for as many matches as possible to maximize liquidity; and (2) keep the NBBO as stable as
          possible for a period of time after executions occur on the ATS"). IntelligentCross further states that one
          commenter misunderstands its use of "machine learning/AI" in the IntelligentCross matching process, and
          asserts that such technology is used solely for calculating the matching schedules using the overnight
          optimization process. See IntelligentCross Letter III at 2. IntelligentCross represents that "no changes
          occur to the IntelligentCross matching process during the trading day due to 'machine learning technology'

and to review the calculation and application of its matching schedules.[131] In particular,

IntelligentCross states that it performs reviews on a daily basis to ensure that its matching

parameters are within the correct time bands,[132] and, on a weekly basis, reviews performance of

its systems "to ensure that it is accomplishing its objectives and to ensure that the matching

process does not act in a discriminatory manner in favor of or against any participant or category

of participants."[133]

The other concerns related to the IntelligentCross matching process and the qualification

of its displayed quotes as a protected quotation, have been adequately addressed in the response

letters by IntelligentCross and FINRA, as well as in the Proposal, such that the Proposal is

consistent with the requirements of the Exchange Act and the rules and regulations applicable to

a national securities association. Specifically, with respect to requests for more transparency and

detail on access to its displayed quotations and the differential treatment of market

participants,[134] IntelligentCross has provided more detail, demonstrating that its matching

process is symmetric in nature and does not favor a particular side of the trade.[135] Match

schedules are defined by minimum/maximum time bands for each security (between 150 and 900

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or AI," and the IntelligentCross "matching process is not reactive to changing market conditions like other exchange order types or matching processes, i.e., our trade matching process is not 'driven by AI as characterized by the commenter." Id. See also supra note 77 (describing commenter concern on the use of "machine learning technology" in the IntelligentCross matching process).

[131]   See IntelligentCross Letter III at 4.

[132]   IntelligentCross states that this review is to ensure "there are no anomalies outside a tolerance time band before those matching schedules are utilized during the trading day" and "a principal signs off that such review was performed." Id. at 4-5.

[133]   Id. at 5.

[134]   See supra note 84.

[135]   See supra note 75 (describing commenter's request to consider impact of the intentional delay on fill rates and execution quality on IntelligentCross).

microseconds) based on an overnight optimization process that uses historical performance measurements from prior days' matches. The time of the actual match event is randomized within the match event band throughout the course of the trading day. As described by IntelligentCross, the delayed matching process is calibrated to reduce market impact and adverse selection for market participants, thereby fostering increased access to displayed liquidity through the ADF and more competition among markets to the benefit of all market participants. Both sides – the buyer and the seller – can cancel their orders at any time prior to a match and must wait equally for the next scheduled match event to occur in price-time priority, thus not resembling an asymmetric delay as supposed by certain commenters.[136] The IntelligentCross matching process provides both sides a fair opportunity to manage their orders, as both sides are blind to the length of the delay once an order is accepted by the system or where the order sits in the delay mechanism (e.g., whether there are 5 microseconds or 500 microseconds remaining before a match event takes place), and neither side knows when submitting their order which direction the market may move if there are changes in the NBBO that occur during the delay. Accordingly, depending on the side of the market the NBBO moves, the buyer or seller may be as equally likely to attempt to cancel their orders prior to a match event as there is not a systematized delay on one side of a trade, and thus the matching process does not impose unfairly discriminatory terms against efficient access to displayed quotations.

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[136]   See supra note 87 and accompanying text.

With respect to more information on "fill rates and execution quality" on IntelligentCross in assessing protected quotation status to the market, IntelligentCross provided additional data highlighting execution quality metrics for the first six months of 2023.[137]

The Commission also agrees with IntelligentCross that the regulatory obligations associated with protected quotations under Regulation NMS do not provide a guarantee of an execution, which commenters appear to suppose when highlighting non-match events or cancellation rates.[138] While market participants accessing the IntelligentCross protected quotation would be subject to IntelligentCross' delayed, randomized matching process, the Commission believes, as stated above, that the length of IntelligentCross' specific delay or its randomized nature would not frustrate the purposes of Regulation NMS by impairing fair and efficient access to IntelligentCross' displayed quotations. Furthermore, as described above, the information provided in the Proposal, the response letters by IntelligentCross and FINRA, and the availability of further information on IntelligentCross' publicly posted Form ATS-N and website, have addressed transparency concerns surrounding the IntelligentCross matching process such that the information will promote fair and efficient access to its quotations.

The Commission is also unpersuaded by comments regarding the difficulties for market participants to adapt to an IntelligentCross protected quote.[139] With respect to ISOs,[140] the Commission believes that market participants can satisfy their obligations under Regulation

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[137]   See IntelligentCross Letter at 2; IntelligentCross Letter II at 2. See also supra note 113 (describing execution quality statistics for the first six months of 2023).

[138]   See infra notes 168 and 170 and accompanying text.

[139]   See supra notes 78-80 and accompanying text.

[140]   See supra note 80.

NMS by simply routing ISOs to IntelligentCross' protected quotations, as necessary. While

some commenters state that the IntelligentCross matching mechanism could pose challenges for

market participants to deploy certain order routing strategies or lead to information leakage,[141]

IntelligentCross is already widely used by most major broker-dealer and electronic trading

firms,[142] which no other commenter disputed, and the commenters did not present evidence that

the current considerations that market participants face when interacting with IntelligentCross'

liquidity and displayed liquidity in other markets would be appreciably affected by the Proposal.

> b. Compliance with Rule 610 of Regulation NMS and Ongoing Obligations

As discussed above, FINRA believes that IntelligentCross' proposed level and cost of

access to quotations on the ASPEN Fee/Fee book is substantially equivalent to the level and cost

of access to quotations displayed by an SRO trading facility, both in absolute and relative

terms.[143] Two commenters raise questions regarding the regulatory process in connection with

proposed changes to IntelligentCross' operations and fees associated with displaying protected

quotations on the ADF.[144] One commenter states that there is currently no regulatory process for

ongoing operational changes at non-exchange venues with protected quotes and intentional

access delays.[145] This commenter states that without the exchange notice and comment process

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[141]   See id.

[142]   See IntelligentCross Letter at 2 (in January 2023, IntelligentCross' daily market share was 110 basis points, and was consistently third in total shares traded by ATSs of NMS Tier 1 and Tier 2 stocks in FINRA ATS weekly statistics, averaging $5.9 billion notional traded per day).

[143]   See Notice, supra note 3, at 79404, n.37.

[144]   See Healthy Markets Letter at 2; FIA PTG Letter at 2; FIA PTG Letter II at 2. See also IEX Letter at 3 (stating that it is important for there to be a "clear expectation that material changes to methods affecting quote display and access" be subject to appropriate review, for example, by requiring material changes to be filed by FINRA through the SEC rule filing process); IEX Letter II at 6.

[145]   See FIA PTG Letter at 2; FIA PTG Letter II at 2-3.

in connection with changes to operations, it seeks additional information on the regulatory process for managing such changes at IntelligentCross and the ADF.[146] One commenter states that even if IntelligentCross agrees to a method of review for material changes as an ADF participant, IntelligentCross does not offer suggestions about how rule filing and review process would work or suggest any alternatives.[147] This commenter also states that FINRA has made no representation in the record to indicate it would be willing to undertake a rule filing obligation with respect to material changes by IntelligentCross as an ADF participant.[148]

One commenter states that if the Commission chooses to permit any trading center to disseminate quotations using the ADF, it must condition approval with limitations that are consistent with limitations imposed upon other trading venues (i.e., exchanges) whose quotations have protected quotation status.[149] In particular, this commenter states that approval of the Proposal should be conditioned upon IntelligentCross: (1) continuing to not charge for market data or connectivity; (2) having fees and rebates (if adopted) that are at or below those charged by exchanges; (3) notifying the Commission and FINRA of all changes related to the ASPEN Fee/Fee book; and (4) describing how any such changes are consistent with the ASPEN Fee/Fee book quotations continuing to be included as a protected quotation is consistent with the

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146   See FIA PTG Letter at 2; FIA PTG Letter II at 2-3.

147   See IEX Letter II at 6.

148   See id. at 6.

149   See Healthy Markets Letter at 2. This commenter states that if the Commission approves the Proposal, "it would be difficult, if not impossible, for the Commission to practically constrain IntelligentCross' fees and potential limitations for accessing the newly protected quotations." Id. at 9. See also Healthy Markets Letter II.

Exchange Act and protection of investors.[150] This commenter also states that both the

Commission and FINRA should detail how they would "gather, review, analyze, and publish for

public consideration" any changes to IntelligentCross' policies and procedures related to the

Proposal, as well as describe how they would intervene to block or disallow any concerning

changes in IntelligentCross' policies and procedures related to the ADF.[151] Overarching this

commenter's concerns with the Proposal are that any changes to the ASPEN Fee/Fee book rules

and operations should be treated the same for regulatory purposes as if they were changes made

by an exchange, including that they are put out for notice and public comment, and subject to

Commission disapproval.[152]

In its response letters, IntelligentCross points to its current regulatory responsibilities

associated with being a registered broker-dealer and an ATS, as well as the Regulation NMS

obligations attached to being an ADF participant.[153] FINRA also states that its rules set forth

requirements applicable to an ADF participant and require that such participants meet the

requisite standards on an ongoing basis.[154] IntelligentCross states its belief that the level and cost

of access to its quotations complies with Rule 610 as it is substantially equivalent to the level and

cost of access to quotations displayed by SRO trading facilities and will not impose burdens on

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[150]   See Healthy Markets Letter at 2. This commenter also states that if the Commission approves the Proposal, it should expressly condition the approval on IntelligentCross being compliant with Regulation SCI like other trading centers with protected quotations. See id. at 8, n.29. IntelligentCross states that it became Regulation SCI compliant as of August 1, 2023. See IntelligentCross Letter III at 5.

[151]   See Healthy Markets Letter at 2.

[152]   See id. at 17. See also IEX Letter at 10; IEX Letter II at 6 (stating that "approval of the Proposal would result in a double standard in treatment of exchanges compared to ATSs that have protected quotes").

[153]   See IntelligentCross Letter at 11; IntelligentCross Letter II at 8-9.

[154]   See FINRA Letter II at 3-4.

market participants.[155] Additionally, IntelligentCross states that it does not impose unfairly

discriminatory terms that would prevent or inhibit any person from accessing its quotations

through a subscriber of the trading center.[156] Specifically, IntelligentCross represents that "it

does not tier or discriminate among subscribers" and any registered US broker-dealer in good

standing of an SRO may become a subscriber of IntelligentCross.[157]

IntelligentCross also states that, while an ATS is not subject to the same regulatory

requirements as exchanges, it also does not share the same benefits as exchanges.[158] However,

IntelligentCross states that it does not object to notifying the Commission and FINRA in advance

if changes are made to the level and cost of access to the ASPEN Fee/Fee book impacting the

display of IntelligentCross' protected quotations on the ADF, or the operation of the ASPEN

Fee/Fee book impacting the provision of the protected quote.[159] IntelligentCross also states that

it does not object to an "appropriately structured process" to engage the Commission in

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[155]   See IntelligentCross Letter II at 8-9 (discussing level and cost of access to IntelligentCross).
        IntelligentCross states that FINRA provides a pre-approved (non-exclusive) list of ADF connectivity
        providers to help market participants seeking to access quotations posted through the ADF, and ADF
        participants must be accessible through at least two of the connectivity providers. Id. at 8.

[156]   See id. at 9 (discussing fair access to its market by subscribers). IntelligentCross highlights obligations
        under FINRA Rules 6240 (Prohibition from Locking or Crossing Quotations in NMS Stocks), 6250 (Quote
        and Order Access Requirements), and 6260 (Review of Direct or Indirect Access Complaints) regarding
        ADF access requirements. See id.

[157]   See id. at 9-10 (also stating that IntelligentCross creates and maintains records of all decisions granting or
        denying access, that IntelligentCross considers a subscriber's regulatory history in examining a subscriber's
        application, and that, when the ASPEN Fee/Fee book displays orders through the ADF, non-subscribers
        would access IntelligentCross).

[158]   See IntelligentCross Letter at 11.

[159]   See id. IntelligentCross also states that it would not object to describing how such changes are consistent
        with the ASPEN Fee/Fee book quotations continuing to be included as protected quotations, consistent with
        the Exchange Act. See id. In addition, IntelligentCross states that material changes to its policies and
        procedures governing access to IntelligentCross, including a change to its fees, will be submitted to the
        Commission under Form ATS-N. See IntelligentCross Letter II at 11.

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evaluating and commenting on such changes.[160] Further, IntelligentCross acknowledges that it

may be subject to other regulatory obligations in the future depending on changes to its platform

or its volume.[161] But IntelligentCross disagrees with the commenter's recommendation to

condition IntelligentCross' approval on "continuing to not charge for market data or

connectivity"[162] given that it believes such a requirement would not be consistent with the

limitations imposed on exchanges and the "substantially equivalent" basis under Rule 610.[163]

FINRA, as the SRO responsible for enforcing compliance by ADF participants with the

requirements of the Exchange Act, must act as the "gatekeeper" for the ADF, and, as such, is

required to closely evaluate the extent to which ADF participants, including IntelligentCross and

any future ADF participants, meet the access standards of Rule 610.[164] As part of this process,

the Commission stated in the NMS Adopting Release that NASD (now FINRA) would be

required to submit a proposed rule change under Section 19(b) of the Exchange Act in order to

add a new ADF participant.[165] If an ADF participant is not complying with the access standards

under Rule 610, FINRA has the responsibility to stop publishing the participant's quotations

until the participant comes into compliance.[166] The Commission believes that a reasonable and

appropriate method for FINRA to satisfy its ongoing responsibility for ensuring that an ADF

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[160]   See IntelligentCross Letter at 11.

[161]   See Notice, supra note 3, at 79402, n.19. See also IntelligentCross Letter at 11, n. 41.

[162]   See supra note 144 and accompanying text.

[163]   See IntelligentCross Letter at 11-12. IntelligentCross also states that it currently does not charge for market data and connectivity. See id. at 12.

[164]   See NMS Adopting Release at 37549.

[165]   See id.

[166]   See id.

participant is complying with Rule 610 is to submit material changes that affect access, including

the level and cost of access, to quotations displayed by the ADF participant as proposed rule

changes under Section 19(b) of the Exchange Act that would be subject to notice and comment.

The fees and the policies and procedures governing access to protected quotations

displayed on the ADF by IntelligentCross as described above would provide market participants

with fair and efficient access and are not unfairly discriminatory such that they would prevent a

market participant from obtaining efficient access to such quotations. All members in good

standing of an SRO are eligible to become IntelligentCross subscribers, and both subscribers and

non-subscribers may access IntelligentCross liquidity. IntelligentCross offers both subscribers

and non-subscribers multiple options to access its liquidity. In addition, IntelligentCross has

policies and procedures that require it to respond to orders by non-subscribers as promptly as it

responds to orders by subscribers and allow for non-subscribers to be able to automatically

execute against quotations displayed by the system. IntelligentCross does not assess charges that

may be assessed by exchanges, such as membership fees, trading rights fees, risk gateway fees,

and other miscellaneous fees. IntelligentCross' proposed level and cost of access to quotations

on the ASPEN Fee/Fee book is substantially equivalent to the level and cost of access to

quotations displayed by an SRO trading facility, both in absolute terms and relative to its trading

volume.[167] Both sides – the buyer and the seller – can cancel or update their orders at any time

prior to a match and both must equally wait for the next scheduled match event to occur. In

addition, the Commission does not believe that the level of cancellation during the delay imposes

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[167]   See NMS Adopting Release at 35749, n.449.

unfairly discriminatory terms that prevent or inhibit any person from obtaining efficient access to

such quotations as it has been shown that non-match events occur in a minority of cases, and

market participants receive an execution the majority of the time.[168] IntelligentCross has policies

and procedures in place to oversee and review the calculation and application of its matching

schedules to help ensure the matching process does not act in a discriminatory manner in favor of

or against any market participants.[169] Furthermore, the Commission believes that the

cancellation rate alone does not demonstrate that IntelligentCross imposes unfairly

discriminatory terms given that the ability of any market participant to successfully execute

against any particular displayed quote is subject to a number of factors and is not guaranteed on

any market, as at any time any market participant can be seeking to execute against an order that

is being repriced, changed, cancelled, or executed by a different market participant.[170]

Further, as discussed above, in the event that IntelligentCross intends to make a material

change to the policies and procedures governing access to IntelligentCross, including a change to

its fees, it has represented that it will submit the changes made to FINRA, and acknowledges that

FINRA will post on its website an amended description of IntelligentCross' policies, procedures,

and fees governing access.[171] In response to comments on the lack of a notice and comment

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[168]   IntelligentCross states that in January 2023, 3.9 percent of potential matches on the ASPEN Fee/Fee book did not complete because a displayed order was cancelled, and 4.5 percent of potential matches did not complete because the NBBO changed and at least one of the sides became non-marketable. See IntelligentCross Letter at 8, n.30.

[169]   See supra note 133 and accompanying text.

[170]   See Securities Exchange Act Release No. 89686 (August 26, 2020), 85 FR 54438, 54445 (September 1, 2020) (Order Approving a Proposed Rule Change to Add a New Discretionary Limit Order Type Called D Limit).

[171]   See supra note 52.

process in connection with the potential for future material changes to the operations and fees of IntelligentCross as an ADF participant,[172] FINRA has represented to the Commission that it will file such material changes as a proposed rule change with the Commission under Section 19(b) of the Exchange Act.[173] Under this process, the Commission would review the proposed rule change and consider any public comments received. In addition, changes to the operations of IntelligentCross, as well as its disclosures on its public Form ATS-N, are subject to the requirements of Rule 304 of Regulation ATS. Accordingly, the Commission believes that commenter concerns regarding the regulatory process for proposed changes to IntelligentCross' operations and fees associated with displaying protected quotations on the ADF have been adequately addressed by IntelligentCross and FINRA.[174] FINRA's ongoing obligation to ensure compliance by IntelligentCross as an ADF participant with its Regulation NMS obligations, FINRA's commitment to file proposed rule changes relating IntelligentCross' operations, and IntelligentCross' regulatory responsibilities as an ATS, appropriately ensures transparency and ongoing assessment of consistency with the Exchange Act.

Finally, in response to one commenter's recommendation that approval of the Proposal be conditioned on IntelligentCross "continuing to not charge for market data or connectivity,"[175] such a condition is inconsistent with the limitations imposed on an ADF participant under Rule

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[172]   See supra notes 144-146.

[173]   See FINRA Letter II at 4.

[174]   See supra notes 149-151 and accompanying text.

[175]   See supra note 150.

610 which requires a level and cost of access that is substantially equivalent to the level and cost of access to quotations displayed by SRO trading facilities.[176]

2. Implementation Period

FINRA states that the "effective date" of the Proposal would be the date of the Commission's approval.[177]

Two commenters suggest that the proposed implementation period for the Proposal is too short given the connectivity arrangements that the industry would need time to establish.[178] One commenter suggests an implementation period of no less than 120 days following the date of Commission approval.[179] Another commenter recommends an implementation period of no less than 90 days following the date of Commission approval.[180] In one of its response letters, IntelligentCross states that it has been working with industry participants to ensure that they have all the information necessary to prepare for the IntelligentCross protected quote.[181] IntelligentCross also states that most major broker-dealers and electronic trading firms are already connected to, and trading within, IntelligentCross.[182] Moreover, IntelligentCross believes that a reasonable implementation timeframe would be to require that industry participants begin treating IntelligentCross' quotes as a protected quotation no later than 90 days

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[176]   See supra note 150 and accompanying text.

[177]   See Notice, supra note 3, at 790404.

[178]   See FIA PTG Letter at 2; FIA PTG Letter II at 3; SIFMA Letter at 4.

[179]   See FIA PTG Letter at 2.

[180]   See SIFMA Letter at 4-5.

[181]   See IntelligentCross Letter at 10.

[182]   See id.

after the date of the Commission's approval order.[183] One commenter states that the 90-day

implementation period proposed by IntelligentCross is in line with previous Commission

guidance on treating new exchange quotes as protected.[184]

Following the issuance of this order and IntelligentCross having met the conditions to

begin operating as an ADF participant, market participants will be required to have reasonably

designed policies and procedures to treat IntelligentCross' best bid and best offer as a protected

quotation.[185] At the same time, to meet their regulatory responsibilities under Rule 611(a) of

Regulation NMS, market participants must have sufficient notice of new protected quotations, as

well as all necessary information (such as final technical specifications).[186] Given that the

Commission understands IntelligentCross is already widely used by most major broker-dealer

and electronic trading firms,[187] and has engaged in market participant outreach regarding its

status as an ADF participant,[188] the Commission believes that an implementation period of no

less than 90 days following the date of Commission approval is a sufficient timeframe for market

participants to establish connectivity to the IntelligentCross protected quotation in order to meet

their obligations under Rule 611. Accordingly, the Commission believes that it would be a

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[183]   See id.

[184]   See FIA PTG Letter II at 3 (citing to Securities Exchange Act Release Nos. 58375 (August 18, 2008), 73 FR 49498, 49505 (August 21, 2008) (approval of the BATS Exchange), 61698 (March 12, 2010), 75 FR 13151, 13163 (March 28, 2010) (approval of the EDGA and EDGX exchanges) and 78101 (June 17, 2016), 81 FR 41141 (approval of the Investors' Exchange)).

[185]   See 17 CFR 242.611(a).

[186]   See Securities Exchange Act Release No. 53829 (May 18, 2006), 71 FR 30038, 30041 (May 24, 2006) (File No. S7-10-04) (extending the compliance dates for Rule 610 and Rule 611 of Regulation NMS under the Exchange Act).

[187]   See supra note 120.

[188]   See supra note 181.

reasonable policy and procedure under Rule 611(a) to require that industry participants to begin treating IntelligentCross' best bid and best offer as a protected quotation within 90 days after the date of this order, or such later date as IntelligentCross begins operation as a new ADF participant.

3. ADF Technological Infrastructure

One commenter states that the Commission and FINRA should consider whether to "wind down" the ADF due to concerns regarding the latency and technological infrastructure of the ADF.[189] Specifically, this commenter states that the Proposal does not provide any details of the ADF's systems capabilities and questions whether the "intake, processing, and dissemination systems [are] up to 2023 speed and capacity standards."[190] This commenter also expresses concern regarding the speed at which the ADF disseminates quotation data compared to the speed at which IntelligentCross' proprietary quotation feed is disseminated to market participants.[191] This commenter states that it is unclear the extent to which "FINRA has attempted to upgrade the system" to address the latency gap.[192] One commenter requests more transparency regarding any latency tests conducted by FINRA with IntelligentCross to determine the latency related to transmission from IntelligentCross to the ADF and the time for the ADF to process and publish updates to the SIPs.[193]

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[189]   See Healthy Markets Letter at 14-17.

[190]   See id. at 14. This commenter asserts that it is "not aware of any public details regarding the details of [the ADF's] operations, including systems specifications and latencies." Id.

[191]   See id. at 7.

[192]   See id. at 8.

[193]   See IEX Letter at 8. This commenter also raises general questions regarding latency and the use of consolidated data or proprietary data for receiving IntelligentCross quotes. See id. at 9. IntelligentCross

In its response letter, FINRA states that it has made technological updates to the ADF infrastructure that make it "well-equipped to support use of the ADF by multiple market participants for quoting and trading purposes."[194] FINRA also states that its recent technological updates to the ADF have significantly reduced the ADF's processing latency times as compared to when the ADF was last operational in 2015.[195] FINRA also represents that it continues to conduct capacity requirement testing with IntelligentCross and "aim[s] to address any potential areas identified for further improvement prior to IntelligentCross becoming an ADF [p]articipant and sending quotes to the ADF (subject to SEC approval)."[196] Additionally, based on the results of FINRA's ADF testing with IntelligentCross, FINRA states that ADF latency is generally in line with exchange latency to dissemination by the SIPs.[197] FINRA also states that it expects the ADF latency in production to be lower than in the ADF test environment.[198] Accordingly, FINRA believes that any processing latency for the ADF would generally be in line with exchange processing latencies once IntelligentCross begins quoting on the ADF.[199]

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states that it has committed to providing quote updates to the ADF no later than when they are disseminated via its proprietary data feed. See IntelligentCross Letter II at 7.

[194] See FINRA Letter at 3. FINRA states that in 2021 it began a multi-year effort to update the technological infrastructure for several of its facilities, relevant data vendor feeds, and related reference data. See id. The ADF's trade reporting and quoting functionality were migrated onto a new platform in November 2021 and March 2022, respectively. See id.

[195] See id. FINRA states that the ADF supports increments of nanoseconds for both its quoting and reporting functions. See id.

[196] Id.

[197] See FINRA Letter II at 6. FINRA states that the ADF latency tests conducted by FINRA with IntelligentCross were conducted as stress tests that included processing volumes and sustained messages rates well in excess of those likely to be experienced in production. See id. See FINRA Letter II at 5-6 for additional detailed description of FINRA's ADF latency tests.

[198] See id.

[199] See id.

The Commission believes that FINRA has demonstrated that, with the recent technological updates to address latency in the ADF's system capabilities,[200] along with recent tests to the ADF application with IntelligentCross, the ADF technology infrastructure will be consistent with current speed and capacity standards for processing and disseminating IntelligentCross' quotations. Moreover, FINRA and IntelligentCross have represented that they will continue to conduct testing and explore technological enhancements to further reduce ADF latency, thus ensuring that the ADF technology infrastructure continues to be consistent with current processing latencies.[201]

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[200]   See supra notes 194 and 195.

[201]   See Notice, supra note 3, at 79404; FINRA Letter II at 6.

IV.   Conclusion

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Exchange Act,[202]

that the proposed rule change (SR-FINRA-2022-032) is approved.

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

authority.[203]

Sherry R. Haywood,

Assistant Secretary.

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[202]   15 U.S.C. 78s(b)(2).

[203]   17 CFR 200.30-3(a)(12).