

Exhibit 3

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Part II: Activities of the Broker-Dealer Operator and its Affiliates

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Item 5: Other Products and Services

- a. Does the Broker-Dealer Operator offer Subscribers any products or services for the purpose of effecting transactions or submitting, disseminating, or displaying orders and trading interest in the NMS Stock ATS (e.g., algorithmic trading products that send orders to the ATS, order management or order execution systems, data feeds regarding orders and trading interest in, or executions occurring on, the ATS)?

☒ Yes ☐ No

If yes, identify the products or services offered, provide a summary of the terms and conditions for use, and list here the applicable Item number in Part III of this form where the use of the product or service is explained. If there is no applicable Item in Part III, explain the use of the product or service with the ATS here.

Answer: The ATS offers a market data feed (the "IQX Data Feed") that disseminates all eligible orders that Subscribers submit to ASPEN (as discussed in Part III, Item 7). The IQX Data Feed only displays orders that Subscribers choose to display.

Orders eligible to be displayed are: (1) Limit Orders and (2) Primary Peg Orders. Limit Orders and Primary Peg Orders also may be designated as add liquidity only orders ("ALO Orders"). For more information on the ATS' order types and order type modifiers, please see Part III, Item 7. The During Regular Trading Hours, the ATS will display Limit Orders and Primary Peg Orders at one price variation less aggressive than the price of contra-side interest displayed inside of the ATS or as part of the National Best Bid or Offer ("NBBO") (whichever is lower) where such orders would otherwise lock or cross displayed contra-side interest inside the ATS or as part of the NBBO as determined by the SIP and/or SRO proprietary data feeds. During the Overnight Trading Session, as described in Part III, Item 4, orders eligible to be displayed are Limit Orders only, which may be designated as ALO Orders.

The ATS may setup a Hosted Pool, at the request of a Subscriber and subject to the approval of the ATS, where such Subscriber will designate that an order interact with other orders entered by that same Subscriber, or other Subscribers participating in the same Hosted Pool. Orders designated by a Subscriber to interact with other orders in a Hosted Pool, including orders designated to interact first with other orders in a Hosted Pool and then with orders outside the Hosted Pool, are not eligible to be displayed orders.

The ATS' Hosted Pools provide certain services relating to indications of interest ("IOIs"). A complete discussion of such services can be found in Part II, Item 9 and is described generally below.

First, the ATS' Hosted Pools permit the publication of IOIs which allow participants of a Hosted Pool to send IOIs to any other participant of that Hosted Pool. IOIs contain symbol, side and size only.

Second, the ATS provides a separate service, a "Block IOI" service, only in the Hosted Pools during Regular Trading Hours to (1) have the ATS inform non-Subscriber clients ("Sponsored Firms") of contra liquidity in a designated Hosted Pool by responding to IOIs sent by the Sponsored Firm to the ATS and (2) to allow such Sponsored Firms to send firm orders directly to the designated Hosted Pool via a sponsored access FIX session of a Subscriber sponsoring the Sponsored Firm ("Sponsor"). Similar to other IOIs in the ATS, Block IOIs contain symbol, side and size only.

The ATS' Hosted Pools also allow Sponsored Firms to submit firm orders directly to a designated Hosted Pool separate from the Block IOI service, *i.e.*, not in response to an IOI, via a sponsored access FIX session of a Sponsor. Such firm orders will not be subject to the firm-up workflow associated with the Block IOI service, will be immediately executable, and will be treated the same as other firm orders sent to that Hosted Pool.

The ATS provides Sponsors with tools and functionality that they may use to assist them in complying with their obligations under the SEC's Market Access Rule (Rule 15c3-5 under the Securities Exchange Act of 1934). This includes Sponsors setting and managing risk limits for their Sponsored Firms, suspending sponsorship for specific or all clients or restrict certain types of trades, and providing drop copies or flat files of firm order activity. The ATS will not allow a trade by a Sponsored Firm if it would breach the limit imposed by the Sponsor.

Subscribers and non-Subscribers can receive the IQX Data Feed ("IQX Data Feed Recipients"). Non-Subscribers that receive the IQX Data Feed include buy-side firms, banks, and National Securities Exchanges. The IQX Data Feed is provided to IQX Data Feed Recipients through Pico. The ATS does not charge IQX Data Feed Recipients for the receipt of the IQX Data Feed. Pico, however, may charge a telecommunications/communications fee to receive the IQX Data Feed that IQX Data Feed Recipients are responsible for paying. Additional information regarding the IQX Data Feed can be found in response to Part III, Item 15.

IntelligentCross offers a SOR that allows clients to send orders FIX-tagged with instructions to access the SOR in routing orders to external trading centers, such as ATSs (including the IntelligentCross ATS), single dealer platforms, exchanges, and other brokers. The SOR will access the ATS through direct market access providers that are also Subscribers to the ATS, or through the IntelligentCross broker-dealer. In addition, IntelligentCross provides functionality to Subscribers which allows a Subscriber to submit orders to the ATS but have those orders sent

to the IntelligentCross SOR, which will route orders to external trading centers, such as ATSS (including the IntelligentCross ATS), single dealer platforms, exchanges, and other brokers. Such orders do not enter the ATS matching engine. Please see Part III, Item 16 for more details.

- b. If yes to Item 5(a), are the terms and conditions of the services or products required to be identified in Item 5(a) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

- c. Does any Affiliate of the Broker-Dealer Operator offer Subscribers, the Broker-Dealer Operator, or both, any products or services for the purpose of effecting transactions or submitting, disseminating, or displaying orders or trading interest in the NMS Stock ATS?

☐ Yes ☒ No

If yes, identify the products or services offered, provide a summary of the terms and conditions for use, and list here the applicable Item number in Part III of this form where the use of the product or service is explained. If there is no applicable item in Part III, explain the use of the product or service with the ATS here.

- d. If yes to Item 5(c), are the terms and conditions of the services or products required to be identified in Item 5(c) the same for all Subscribers and the Broker-Dealer Operator?

☐ Yes ☐ No

If no, identify and explain any differences.

Item 6: Activities of Service Providers

- a. Does any employee of the Broker-Dealer Operator or its Affiliate that services both the operations of the NMS Stock ATS and any other business unit or any Affiliate of the Broker-Dealer Operator ("shared employee") have access to confidential trading information on the NMS Stock ATS?

☒ Yes ☐ No

If yes, identify the business unit, Affiliate, or both that the shared employee services, and provide a summary of the role and responsibilities of the shared employee at the ATS and the business unit, Affiliate, or both that the shared employee services.

Answer: The parent of IntelligentCross, Imperative Execution Inc. ("Imperative Execution"), is in the business of developing and licensing the technology that underlies the ATS platform operated by IntelligentCross. Imperative Execution licenses the technology underlying the ATS platform to IntelligentCross pursuant to an expense sharing agreement between IntelligentCross and Imperative Execution. Imperative Execution also develops smart order routing and other technology that it licenses to broker-dealers; IntelligentCross does not license such technology.

There are certain employees of Imperative Execution ("Shared Employees") that are IntelligentCross registered persons with FINRA ("Registered Persons"). Such Shared Employees have access to Subscriber Confidential Trading Information (as defined in Part II, Item 7.a), as the only business line of IntelligentCross is that of operating the ATS. Certain Shared Employees of Imperative Execution who are not Registered Persons have access to Confidential Trading Information of the ATS under the supervision of an IntelligentCross Registered Person.

Listed below are the categories of Shared Employees that have access to Subscriber Confidential Trading Information along with their role at Imperative Execution:

- (1) Senior Management/Supervisors - Shared Employees acting in a supervisory or oversight capacity have access to Subscriber Confidential Trading Information relating to the ATS. Certain of these Shared Employees, among other responsibilities, have supervisory responsibilities reasonably designed to ensure that the ATS operates as intended. Certain of these Shared Employees also act in management roles with respect to Imperative Execution and provide strategic oversight of the development and licensing of the routing and other technology that it licenses to broker-dealers.
- (2) Legal/Regulatory/Compliance - Shared Employees in the Legal, Regulatory and Compliance Departments are involved in providing support with respect to regulatory requirements of the businesses of Imperative Execution and IntelligentCross, including the operation of the ATS. These Shared Employees provide such support by, among other functions, responding to regulatory inquiries. In the course of performing such functions and generally providing support to the ATS, these Shared Employees may have access, on an as-needed basis, to Subscriber Confidential Trading Information.
- (3) Production Support/Market Operations - Shared Employees within these groups include developers, systems engineers, and network engineers for Imperative Execution (with respect to the development of routing and other technology) and for IntelligentCross (with respect to support of the ATS). They are responsible for developing, operating, and supporting the coding, systems infrastructure, and network infrastructure that supports the ATS to ensure stability and continued functionality and are also responsible for developing, testing, and implementing additional functionalities for the ATS as needed. Certain of these Shared Employees have access to the real-time production environment for the ATS. As a result and in order to support the operation and infrastructure of ATS, these Shared Employees are able to access Subscriber Confidential Trading Information.
- (4) Quantitative Research - Shared Employees within this group include personnel who provide research and analyze data relating to, and impacting the operation of, the ATS. Certain of these Shared Employees also support Imperative

Execution by developing and supporting the products offered by Imperative Execution. In the course of their duties, these Shared Employees may have access to Subscriber Confidential Trading Information.

- b. Does any entity, other than the Broker-Dealer Operator, support the services or functionalities of the NMS Stock ATS ("service provider") that are required to be explained in Part III of this form?

☒ Yes ☐ No

If yes, both identify the service provider and provide a summary of the role and responsibilities of the service provider in response to the applicable Item number in Part III of this form, as required. List the applicable Item number here. If there are services or functionalities that are not applicable to Part III, identify the service provider, the services and functionalities, and also provide a summary of the role and responsibilities of the service provider here.

Answer:

The parent and sole member of IntelligentCross, Imperative Execution, is in the business of developing and licensing the technology that underlies the ATS platform operated by IntelligentCross. Imperative Execution licenses such technology to IntelligentCross pursuant to an expense sharing agreement between IntelligentCross and Imperative Execution.

Pico Quantitative Trading ("Pico") is the ATS's managed co-location and network provider. Pico provides networking services and on-site assistance in the data center where the ATS's equipment is hosted. Subscribers may connect to Pico in order to establish connectivity with IntelligentCross (or may connect through other network service providers that have a presence in NY4). Further information on Pico is contained in Part III, Item 6.

Additionally, as referenced in Part III, Item 22, IntelligentCross has entered into clearing agreements with Instinet, LLC ("Clearing Firm"), which is a FINRA and NYSE member firm and a member of the National Securities Clearing Corporation, to provide for clearance and settlement of transactions executed on the ATS.

The ATS has contracted with several consultants ("Consultants"), including IntelligentCross' Financial and Operations Principal ("FINOP"), who are Registered Persons with the Broker-Dealer Operator and not employees of Imperative Execution or IntelligentCross.

Additionally, as referenced in Part III, Item 5, IntelligentCross offers a SOR that allows clients to send orders FIX-tagged with instructions to access the SOR in routing orders to external trading centers, such as ATSs (including the IntelligentCross ATS), single dealer platforms, exchanges, and other brokers. The SOR will access the ATS through direct market access providers that are also Subscribers to the ATS, or through the IntelligentCross broker-dealer. The direct

market access providers are Instinet, LLC ("Instinet") and Goldman Sachs & Co. LLC ("Goldman Sachs").

Additionally, IntelligentCross has engaged an unaffiliated third-party service provider, FinStadiumX Inc., Ltd. (the "Overnight Support Provider"), to provide operational monitoring and support for the ATS (e.g., ensuring the matching engine is operating as designed and without connectivity issues), as described in Part III, Item 5, during the Overnight Trading Session, as described in Part III, Item 4. Personnel of the Overnight Support Provider operate under the supervision of IntelligentCross Registered Persons and pursuant to written procedures established by IntelligentCross. These Overnight Support Provider personnel are considered associated persons of IntelligentCross and are subject to the written supervisory procedures and supervision of IntelligentCross. To the extent Overnight Support Provider personnel have access to Subscriber Confidential Trading Information in the course of providing support to the Overnight Trading Session, such access is governed by the safeguards described in Part II, Item 7.

- c. If yes to Item 6(b), does the service provider, or any of its Affiliates, use the NMS Stock ATS services?

☒ Yes ☐ No

If yes, identify the service provider, or the Affiliate as applicable, and the ATS services that the service provider or its Affiliates use.

Answer: Instinet, LLC, is a Subscriber to the ATS and provides clearance and settlement of transactions executed on the ATS.

Instinet and Goldman Sachs are a Subscribers to the ATS and provide the SOR with market access to the ATS.

- d. If yes to Item 6(c), are the services that the NMS Stock ATS offers and provides to the entity required to be identified in Item 6(c) the same for all Subscribers?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 7: Protection of Confidential Trading Information

- a. Describe the written safeguards and written procedures to protect the confidential trading information of Subscribers to the NMS Stock ATS, including:
- i. written standards controlling employees of the ATS that trade for employees' accounts; and
 - ii. written oversight procedures to ensure that the safeguards and procedures described above are implemented and followed.

Answer: IntelligentCross has implemented written safeguards and procedures designed to protect the Confidential Trading Information of its Subscribers.

Access to Confidential Trading Information

All Shared Employees and certain Imperative Execution employees are responsible for the operation of the ATS or for the ATS's compliance with Regulation ATS or other applicable rules. In accordance with the provisions of Rule 301(b)(10), a Series 24 registered supervisor of IntelligentCross ensures that the ATS restricts access to Subscriber Confidential Trading Information, which includes Subscribers' and Sponsored Firm's real time and historical orders, conditional orders, indications of interest ("IOIs") and Block IOIs (together "trading interest") and executions related to the ATS ("Subscriber Confidential Trading Information"), to Shared Employees and certain Imperative Execution employees who are operating the ATS or responsible for its compliance with Regulation ATS or any other applicable rules. Subscriber Confidential Trading Information shall not include information displayed through the IQX Data Feed. Determinations regarding granting access to Subscriber Confidential Trading Information are made on a case-by-case basis. In making such determinations, the ATS considers the function of the Shared Employees, Imperative Execution employees and the Consultants and the type of Subscriber Confidential Trading Information being accessed. Individuals with access to Subscriber Confidential Trading Information are only authorized to use such information for its intended purpose and cannot disseminate or give such information to anyone not authorized to receive that information.

Those individuals responsible for the operation of the ATS have controlled access via unique login credentials to view a Subscriber's trading interest and executions in the ATS' systems. If trading interest, as applicable, has been made available to IntelligentCross, it resides on the IntelligentCross server, but such data is only accessible by IntelligentCross operations personnel or Imperative Execution personnel as supervised by IntelligentCross Registered Persons. IntelligentCross requires such personnel to understand the authorized uses of such information and requires such personnel to acknowledge, in the form of an attestation, this understanding. Personnel undergo annual compliance training that includes materials related to protecting Confidential Trading Information.

Requests for access to real-time Subscriber Confidential Trading Information must be approved by the CEO/COO or CCO of the ATS or their designee. The requests must be for individuals involved in the operation or compliance functions of the ATS. IntelligentCross conducts as needed reviews of the individuals that have access to Subscriber Confidential Trading Information to ensure its continued compliance with Rule 301(b)(10). As part of the review, IntelligentCross confirms that individuals with access to Subscriber Confidential Trading Information continue to have a valid need to access such information.

IntelligentCross and Imperative Execution maintain information barriers to separate employees, consultants, and systems with access to Subscriber Confidential Trading Information of the ATS from those not permitted to access such information. These information barriers serve as controls to protect Subscriber

Confidential Trading Information. Shared Employees and consultants receive periodic training and periodic guidance regarding the proper use of Subscriber Confidential Trading Information and that Subscriber Confidential Trading Information may only be used with respect to the support and operation of the ATS.

IntelligentCross protects against unauthorized access to or use of Subscriber Confidential Trading Information by use of a password system. Login credentials and passwords are required to gain access to systems containing Subscriber Confidential Trading Information. Passwords are required to be changed periodically and are disabled for terminated individuals or those no longer requiring access. The ATS does not maintain physical separation barriers.

With respect to the ATS's service provider Pico, Pico employs a dedicated, segregated management environment to provide secure access for management of customer and customer facing systems. The environment is protected via a defense in-depth strategy, utilizing a combination of firewalls, network access controls, intrusion detection systems and 2-factor authentication. Customer systems and networks utilize access control lists enforcing the appropriate segmentation and prevention of unauthorized access or data exfiltration. Controls and their effectiveness are actively monitored by a dedicated information security group utilizing a Security Information Event Management system (SIEM), ensuring deviations or anomalies are detected, alerted and reported in a timely manner.

With respect to Instinet, the ATS's clearing provider, it is a broker dealer that is subject to the various rules and requirements that broker-dealers adhere to as part of their day-to-day operations. IntelligentCross has an agreement with Instinet that contains standard confidentiality provisions that further protect Subscriber Confidential Trading Information from potential misuse.

With respect to the Overnight Support Provider, as described in Part II, Item 6, to the extent its personnel require access to Subscriber Confidential Trading Information to provide overnight operational support, such access is limited to activity occurring in the Overnight Trading Session. Overnight Support Provider personnel have no access to Confidential Trading Information relating to Regular Trading Hours activity. Further, such access is on a need-to-know basis and is subject to the same categories of safeguards applicable to other service providers with such access, specifically the Overnight Support Provider's personnel will access the ATS via whitelisted ports only accessible by logging into virtual machines connected to the U.S. based ATS server subject to the same restrictions and security protocols of IntelligentCross Registered Persons. IntelligentCross has an agreement with the Overnight Support Provider that contains confidentiality provisions that further protect Subscriber Confidential Trading Information from potential misuse. The Overnight Support Provider's personnel operate under the supervision of IntelligentCross Registered Persons and are considered associated persons of IntelligentCross. Before engaging the Overnight Support Provider and

on an annual basis thereafter, IntelligentCross reviews the policies and procedures that the Overnight Support Provider has in place to protect Confidential Trading Information. The Overnight Support Provider's personnel are strictly prohibited from using such information in an unauthorized manner and are subject to confidentiality obligations no less protective than those applicable to other service providers with access to Subscriber Confidential Trading Information.

IntelligentCross is required to report transactions executed in the IntelligentCross ATS to the consolidated tape via a FINRA Trade Reporting Facility (TRF).

IntelligentCross offers a SOR that allows clients to send orders FIX-tagged with instructions to access the SOR in routing orders to external trading centers, such as ATSs (including the IntelligentCross ATS), single dealer platforms, exchanges, and other brokers. The SOR will access the ATS through direct market access providers that are also Subscribers to the ATS, or through the IntelligentCross broker-dealer. In addition, IntelligentCross provides functionality to Subscribers which allows a Subscriber to submit orders to the ATS but have those orders sent to the IntelligentCross SOR, which will route orders to external trading centers, such as ATSs (including the IntelligentCross ATS), single dealer platforms, exchanges, and other brokers. Such orders do not enter the ATS matching engine. Please see Part III, Item 16 for more details.

Three types of order and trading information are used in connection with the SOR:

- 1) In order to route orders, the SOR has access to and uses the order detail found in the FIX message sent to IntelligentCross. For example, the SOR uses the price or effective price on an order to determine the order's marketability. The SOR can then use the order's marketability to determine the routing logic for that order. The SOR does not utilize IOIs or Block IOIs.
- 2) Execution data specific to the order being executed can be used by the SOR when an order remains live and partially executed. For example, the SOR can reroute unexecuted shares resting at one venue to another venue based on partial execution data specific to that order. This includes execution data from both IntelligentCross ATS and external trading centers.
- 3) As part of its smart order routing functionality, the SOR is equipped with a machine learning-based process to optimize order routing decisions based on aggregated information about historical routing and execution results involving orders with similar characteristics that have been previously routed. The SOR has the same access to information regarding live orders on the IntelligentCross ATS as is available to all Subscribers, such as that via the IQX market data feed.

When the ATS sends an order to the SOR, pursuant to Part III, Item 16, the ATS transmits the order details (including MPID, symbol, side, quantity, and price or

pricing instructions) to the SOR. The same safeguards applicable to other order and trading information used in connection with the SOR apply to order information received by the SOR from the ATS.

Employees are not authorized to use Confidential Trading Information for purposes of operating the SOR.

Before utilizing a DMA provider and on an annual basis thereafter, IntelligentCross requests and reviews the policies and procedures that the DMA provider has in place to ensure the protection of Confidential Trading Information. The DMA providers have written policies and procedures reasonably designed to safeguard Confidential Trading Information. The DMA providers' employees' access to Confidential Trading Information is dependent upon the level of information that is needed to perform their duties and responsibilities related to providing direct market access ("need to know standard"). The DMA providers' employees are strictly prohibited from using such information in an unauthorized manner and from discussing the details of any Confidential Trading Information with persons who do not need such information to carry out their designated duties and responsibilities. Access to such information is granted as needed to perform these duties and responsibilities. Access to Confidential Trading Information is controlled through permission configurations that provide application access only to entitled users (*i.e.*, users who require access to information to carry out designated duties and responsibilities). Access entitlements are approved by designated supervisors and documented, tracked and monitored. Such procedures include reviews of organizational structure including any new or transferred employees as well as reviews of any personal account trades and any related firm/divisional policy violations. On an annual basis, the DMA Providers' employees (including those with duties and responsibilities related to providing DMA access) participate in compliance training that addresses information protection and client confidentiality. Additionally, the DMA Providers monitor electronic communications to identify potential policy violations.

The ATS' written safeguards and procedures discussed above relating to access to confidential trading information also applies to information relating to conditional orders, IOIs, and the ATS' Block IOI service and other sponsored access arrangements.

Given the sponsored access arrangements made available by the ATS in the Hosted Pools, described in Part II, Item 5(a), the ATS provides each Sponsor with information related to any firm order or trade on which that Sponsor has been designated by a Sponsored Firm.

Personal Securities Transactions

IntelligentCross policies and procedures require pre-approval of personal securities transactions by Registered Persons of the ATS and require a 30-day holding period.

The policies and procedures cover all securities transactions in outside brokerage accounts directed by employees, including but not limited to transactions in securities issued by a company (e.g. stocks, bonds), transactions in any reference securities (e.g. options, preferred stock, futures), and transactions in any packaged products including but not limited to mutual funds and exchange traded funds.

Registered Persons are not permitted to day trade in any securities. They must submit a request in writing or via email to the CCO and CEO prior to each personal securities transaction and must obtain approval from either the CCO or CEO prior to effecting a personal securities transaction. Associated Persons must submit a form or standard email request to the CCO and CEO that identifies:

Security Name & Symbol
Purchase or Sale
Quantity
For Sales: Compliance with 30 Day Holding Period

Compliance personnel conduct periodic reviews of individuals brokerage accounts to ensure compliance with IntelligentCross policies and procedures regarding personal securities transactions.

- b. Can a Subscriber consent to the disclosure of its confidential trading information to any Person (not including those employees of the NMS Stock ATS who are operating the system or responsible for its compliance with applicable rules)?

☐ Yes ☒ No

If yes, explain how and under what conditions.

- c. If yes to Item 7(b), can a Subscriber withdraw consent to the disclosure of its confidential trading information to any Person (not including those employees of the NMS Stock ATS who are operating the system or responsible for its compliance with applicable rules)?

☐ Yes ☐ No

If yes, explain how and under what conditions.

- d. Provide a summary of the roles and responsibilities of any Persons that have access to confidential trading information, the confidential trading information that is accessible by them, and the basis for the access.

Answer: The Shared Employees, certain Imperative Execution employees, the FINOP, and employees at Pico ~~and~~, Instinet, and personnel of the Overnight Support Provider have access to Subscriber Confidential Trading Information. Generally, Shared Employees and Imperative Execution employees have access to both real-time and historical trading interest and trade information; however, certain individuals may be provided access to only historical trading interest and trade information given their job function. Shared Employees and Imperative Execution employees have access to Subscriber Confidential Trading Information to ensure proper operations and

maintenance of the ATS. As a network provider, Pico will have access to Confidential Trading Information because they monitor IntelligentCross' network and host IntelligentCross' equipment. As IntelligentCross' clearing service provider, Instinet will have access to Subscriber execution information but not trading interest information. Instinet and Goldman Sachs will have access to Confidential Trading Information because they act as DMA providers for the SOR, as described in Item 7(a). As the provider of overnight operational support, the Overnight Support Provider's personnel may have access to Subscriber Confidential Trading Information to the extent necessary to monitor and support the ATS during the Overnight Trading Session, as described in Item 7(a). This access includes the Overnight Trading Session trading information via FIX logs, application information, and database access, which allows those personnel to see symbols available, real-time trading information, and real-time connectivity information.

Part III: Manner of Operations

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Item 2: Eligibility for ATS Services

- a. Does the NMS Stock ATS require Subscribers to be registered broker-dealers?

☒ Yes ☐ No

- b. Are there any other conditions that the NMS Stock ATS requires a Person to satisfy before accessing the ATS services?

☒ Yes ☐ No

If yes, list and provide a summary of the conditions.

Answer: The ATS allows as Subscribers those applicants who satisfy certain eligibility requirements. Specifically, Subscribers must meet the following requirements, as applicable:

1. A broker-dealer registered with the SEC and a member of at least one SRO, or registered with an equivalent non-US regulatory authority.
2. Pass Office of Foreign Asset Control ("OFAC") checks and pass disciplinary/regulatory reviews. The disciplinary/regulatory review will include reviewing public information to determine if the potential Subscriber has a disciplinary history that would preclude trading on the ATS.
3. Satisfy such technical or systems requirements as may be prescribed by IntelligentCross, including but not limited to: connectivity certification, the ability to send orders and cancellations, and to receive trades, cancellations, rejects and trade breaks from the ATS.
4. Have clearing and settlement systems and/or arrangements in place to support participation on the ATS, as described further in Part III, Item 22.

5. Attest to having in place arrangements to ensure all staff and systems involved in the conduct of business with IntelligentCross are suitable, adequately registered, as applicable, properly trained and supervised.
6. Execute the Subscriber Agreement or other contractual agreement.
7. Execute all other applicable agreements required to facilitate clearance, settlement, trade reporting, error correction and cancellation of trades effected on or through the ATS.

IntelligentCross shall, after receiving a completed Subscriber application and any additional documentation requested, in its discretion, approve or reject such application, or approve such application subject to such conditions and/or restrictions as it considers appropriate (*e.g.*, potentially limiting the number of orders a Subscriber may send). It processes all applications and completes its review and approval/denial process within thirty calendar days of reception of each completed Subscriber application. Each approval or denial must be authorized by the Chief Compliance Officer and communicated to the Head of Trading Operations. Trading Operations shall then promptly notify the applicant of the decision.

IntelligentCross creates and maintains records of all such decisions granting access, denying access, and granting limited or restricted access, for each applicant, and the reasons for so doing.

In addition, in connection only with the ATS' Hosted Pools (as discussed in Part II, Items 9 and 14), through sponsored access arrangements, Subscribers may authorize their clients ("Sponsored Firms") to submit firm orders directly to the Hosted Pools through a FIX connection, either in response to an IOI invitation or as a stand-alone firm order. For eligibility purposes, a Sponsored Firm must be approved by at least one Sponsor before it is permitted to submit firm orders directly into the ATS. Sponsored Firms may be authorized by multiple Sponsors and, as a result, Sponsored Firms are required to designate a Sponsor for each firm order submitted. Sponsored Firms are clients of the Sponsor and not the ATS, and Sponsored Firms are not Subscribers of the ATS. The Sponsor is responsible for all firm orders on which it is designated as Sponsor entered into the ATS by its Sponsored Firms (*e.g.*, risk checks, clearance and settlement). The ATS does not approve, restrict or categorize the type of entity that a Sponsor may authorize as a Sponsored Firm.

The eligibility requirements for participation in the Overnight Trading Session, as described in Part III, Item 4, are the same as those for participation during Regular Trading Hours. Subscribers are required to have completed Qualified Special Representative ("QSR") agreements for the Overnight Trading Session in order to participate in the Overnight Trading Session. Additionally, the ATS's clearing firm facilitates the necessary clearance, settlement, and trade reporting arrangements for Overnight Trading Session transactions, as discussed in Part III, Item 22. A Subscriber that wishes to participate in the Overnight Trading Session must complete the connectivity certification applicable to the dedicated FIX session used for the Overnight Trading Session, as described in Part III, Item 5.

- c. If yes to Item 2(b), are the conditions required to be identified in Item 2(b) the same for all Persons?

☒ Yes ☐ No

If no, identify and describe any differences.

- d. Does the NMS Stock ATS require Subscribers to enter a written agreement to use the ATS services?

☒ Yes ☐ No

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Item 4: Hours of Operations

- a. Provide the days and hours of operation of the NMS Stock ATS, including the times when orders or trading interest can be entered on the ATS, and any hours of operation outside of regular trading hours.

Answer:

Dates and Hours of Operation

The ATS will be open for the transaction of business on all business days during which the New York Stock Exchange ("NYSE") is open for business. The ATS will observe the holiday schedule of the NYSE.

~~The~~During Regular Trading Hours, the ATS will be operational during regular US market hours, generally 9:30:00 am to 4:00:00 pm Eastern Time ("ET"). It will execute trades ~~only~~ during Regular Trading Hours (as defined below) but will begin to accept orders beginning thirty minutes prior to the open of trading beginning at 9:00 am ET ("Pre-Market Order Acceptance Period").

In addition to Regular Trading Hours, the ATS conducts an Overnight Trading Session. The Overnight Trading Session is open for order entry beginning at 7:45 pm ET and conducts trading from 8:00 pm ET to 9:30 am ET the following business day, subject to the availability of a FINRA TRF to report the resulting transactions on the following calendar day. For example, the ATS conducts an Overnight Trading Session beginning Sunday at 8:00 pm ET and ending Monday at 9:30 am ET. The ATS does not conduct an Overnight Trading Session on Friday evenings, because the FINRA TRFs are not available to report trades on Saturday. Likewise, the ATS does not conduct an Overnight Trading Session on any evening immediately preceding a day on which the TRFs are closed. Orders received between 7:45 pm ET and 8:00 pm ET are queued and time stamped as they are received (same as in the Regular Trading Hours Pre-Market Open Acceptance Period) and are not eligible to match until matching begins at 8:00 pm ET. Immediate-or-Cancel orders are not accepted before 8:00 pm ET. The ATS continues to accept and match orders until 9:30 am ET, at

which time the Overnight Trading Session concludes, and all open orders are cancelled, as described in Part III, Items 7 and 11.

Earlier Subscriber Connectivity is available upon request, as some Subscribers initiate their start-up operations prior to 8:30 am ET (for Regular Trading Hours) or 7:30 pm ET (for Overnight Trading Session). There is no benefit to Subscribers for Earlier Subscriber Connectivity, and for those Subscribers requesting Earlier Subscriber Connectivity, the Pre-Market Order Acceptance Period still begins at 9:00 am ET and the Pre-Overnight Trading Session Order Acceptance Period still begins at 7:45 pm ET.

Event Description	Time (Eastern Time)
System Start and Acceptance of Subscriber Connectivity	8:30 am
Pre-Market Order Acceptance Period	9:00 am - 9:30 am
Regular Trading Hours	9:30 am - 4:00 pm
<u>Overnight Trading Session System Start and Acceptance of Subscriber Connectivity</u>	<u>7:30 pm</u>
<u>Pre-Overnight Trading Session Order Acceptance Period</u>	<u>7:45 pm - 8:00 pm</u>
<u>Overnight Trading Session</u>	<u>8:00 pm - 9:30 am</u> <u>(following business day)</u>

- b. Are the hours of operations the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 5: Means of Entry

- a. Does the NMS Stock ATS permit orders and trading interest to be entered directly into the ATS (e.g., via Financial Information exchange ("FIX") protocol, Binary)?

☒ Yes ☐ No

If yes, explain the protocol that can be used to directly enter orders and trading interest into the ATS.

Answer:

General Operation of the ATS

Subscribers access the ATS via a Financial Information Exchange ("FIX") connection. Such access is available to Subscribers through an internet protocol address via communications that are compliant with the FIX API provided by the ATS. The ATS currently supports FIX 4.2.

Orders for the Overnight Trading Session, as described in Part III, Item 4, are entered directly into the ATS using a dedicated FIX session that is separate from the FIX session(s) used for Regular Trading Hours. Subscribers must complete connectivity certification for, and connect to, the appropriate session for the relevant trading period.

The ATS does not accept orders via any other forms of communication (e.g., telephone, email, instant message).

Required Fields

Subscribers must communicate the following information to the ATS upon order entry through FIX:

Message Type
Client Order ID (unique identifier for order per session)
Execution Instructions
Subscriber Order Capacity (Agent, Principal, Riskless)
Symbol
Side (Buy, Sell, Sell Short, Sell Short Exempt)
Display
Price Instructions
Time in Force
Time of Order Creation (expressed in UTC)
Order Type
Order Quantity
ClientID (used for identifying the client (MPID))
Handling Instruction (ATS supports automated execution and does not provide broker intervention)
Hosted Pool Tag (if applicable)

Order Parameters

Minimum Quantity - Subscribers may submit orders with a MinQty for execution. Subscribers may set MinQty to permit the aggregation of contra-side interest to meet the minimum quantity requirements.

Maximum Quantity - Subscribers may submit orders with a MaxQty for execution. MaxQty is only available in Hosted Pools and the IVWP book (not in the Midpoint or ASPEN books). The ATS's FIX Specification is available to Subscribers upon request.

- b. If yes to Item 5(a), are the protocols required to be identified in Item 5(a) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

- c. Are there any other means for entering orders and trading interest into the NMS Stock ATS (e.g., smart order router, algorithm, order management system, sales desk)?

☒ Yes ☐ No

If yes, identify and explain the other means for entering orders and trading interest, indicate whether the means are provided through the Broker-Dealer Operator, either by itself or through a third-party contracting with the Broker-Dealer Operator, or through an Affiliate of the Broker-Dealer Operator, and list and provide a summary of the terms and conditions for entering orders or trading interest into the ATS through these means.

Answer: IntelligentCross offers a SOR only to persons that are Subscribers to the ATS that allows such Subscribers to send orders FIX-tagged with instructions to access the SOR in routing orders to external trading centers, such as ATSs (including the IntelligentCross ATS), single dealer platforms, exchanges, and other brokers. Access to the SOR is via a FIX connection separate from the FIX connection to the ATS. The SOR will access the ATS through direct market access providers that are also Subscribers to the ATS, or through the IntelligentCross broker-dealer.

The direct market access providers enter orders pursuant to Part III, Item 5.a. Orders that the SOR sends to the ATS via the direct market access provider to be routed to the ATS are directed orders and cannot be routed to any other venue.

The ATS also offers sponsored access arrangements to Sponsored Firms in Hosted Pools. Under these arrangements, Sponsored Firms can send firm orders directly to a designated Hosted Pool via a sponsored access FIX session of a Sponsor. The FIX session is unique to the Sponsored Firm. The sponsored access arrangements will connect with a Sponsored Firm's OMS/EMS. The ATS does not restrict the use of a sponsored access arrangement other than requiring that a Sponsored Firm using this arrangement must have been approved by a Sponsor, and the Sponsor must set risk limits for the Sponsored Firm.

- d. If yes to Item 5(c), are the terms and conditions required to be identified in Item 5(c) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

* * * * *

Item 7: Order Types and Attributes

- a. Identify and explain each order type offered by the NMS Stock ATS. In your explanation, include the following:

- i. priority, including the order type's priority upon order entry and any subsequent change to priority (if applicable); whether and when the order type can receive a new time stamp; the order type's priority vis-à-vis other orders on the book due to changes in the NBBO or other reference price; and any instance in which the order type could lose execution priority to a later arriving order at the same price;
- ii. conditions, including any price conditions (e.g., how price conditions affect the rank and price at which it can be executed; conditions on the display or non- display of an order; or conditions on executability and routability);
- iii. order types designed not to remove liquidity (e.g., post-only orders), including what occurs when such order is marketable against trading interest on the NMS Stock ATS when received;
- iv. order types that adjust their price as changes to the order book occur (*e.g.*, price sliding orders or pegged orders) or have a discretionary range, including an order's rank and price upon order entry and whether such prices or rank may change based on the NBBO or other market conditions when using such order type; when the order type is executable and at what price the execution would occur; whether the price at which the order type can be executed ever changes; and if the order type can operate in different ways, the default operation of the order type;
- v. whether an order type is eligible for routing to other Trading Centers;
- vi. the time-in-force instructions that can be used or not used with each order type;
- vii. the circumstances under which order types may be combined with another order type, modified, replaced, canceled, rejected, or removed from the NMS Stock ATS; and
- viii. the availability of order types across all forms of connectivity to the NMS Stock ATS and differences, if any, in the availability of an order type across those forms of connectivity.

Answer:

Order Types and Order Type Modifiers

The During Regular Trading Hours, the ATS operates three different matching models: (1) a Midpoint book ("Midpoint") that only accepts non-displayed midpoint orders; (2) ASPEN (or the "Adverse Selection Protection Engine"), a full limit order book with optional displayed capability; and (3) IVWP, a non-displayed book that matches using volume-weighted average pricing over fixed or floating time intervals. The Overnight Trading Session only operates the ASPEN book and only certain order types are available during the Overnight Trading Session, as described below.

For Midpoint and ASPEN, the ATS uses a matching mechanism which is near-continuous and that matches orders at scheduled times ("Match Events"), as discussed further in Part III, Item 11. For IVWP, the ATS continuously evaluates VWAP Orders for eligible contra-side matches and upon identification of a match, the ATS initiates an invitation and firm-up process.

As discussed further below, Midpoint only accepts Midpoint Peg Orders (which are not accepted in ASPEN or IVWP), and IVWP only accepts VWAP Orders (which are not accepted in Midpoint or ASPEN). Any orders entered into IntelligentCross through any other order type (e.g., Market Order, Limit Order, Primary Peg Order (with or without a limit price), and Marketable Peg Order (with or without a limit price)) will default to the ASPEN Fee/Fee book. Only Limit Orders and Primary Peg Orders (with or without a limit price) are eligible to be displayed on the ASPEN Fee/Fee book.

For Midpoint, only orders that have rested on the order book for a minimum period of time are eligible to match. Such "Minimum Resting Periods" are determined by the ATS and set in a stock-specific fashion, similar to Match Events. However, in no event will the minimum resting period exceed 200 milliseconds. There are no Minimum Resting Periods for orders on ASPEN, IVWP, or Hosted Pools.

Midpoint Peg Orders

Midpoint Peg Orders are orders to buy or sell a stated amount of a security that are to be executed only at the midpoint price of the NBBO in the Midpoint book. The ATS will accept Midpoint Peg Orders with or without a limit price. Midpoint Peg Orders will be non-displayed.

Midpoint Peg Orders with Time-in-Force Instructions

The ATS will accept Midpoint Peg Orders with time-in-force instructions. Midpoint Peg Orders may be so designated, and such orders are orders to buy or sell a stated amount of a security that are to be executed only at the midpoint price of the NBBO in the Midpoint book. The ATS will accept such Peg Orders with or without a limit price, and these orders will be non-displayed. Midpoint Peg Orders with Time-in-Force instructions will be automatically canceled by the ATS within 100 milliseconds of order receipt by the matching engine; 100 milliseconds is the maximum timeframe in which a cancellation will occur. The amount of time until the order will be automatically canceled is calculated from the time of order receipt, and is determined by the ATS and calibrated on a security-by-security basis. The time period until automatic cancellation will be longer than or equal to the "Minimum Resting Period" (as discussed further in Part III, Item 11). The time period until automatic cancellation may be less than the time between Match Events such that the order may be canceled without participating in a Match Event. For example, if, for a particular security, the time period until automatic cancellation is 20 milliseconds but the time between Match Events is 30 milliseconds, it is possible that an order would be entered by a Subscriber and be automatically canceled before the first Match Event subsequent to order entry. The factors that contribute to determining the

amount of time until an order is canceled include time of day, price reaction after trades, volume and volatility in the security, average spread, trade size, and other market factors. The time until cancellation is adjusted after enough data points have been accumulated to warrant an adjustment. A Subscriber may cancel such a Midpoint Peg Order at any time before the order is fully executed or the ATS cancels the order.

Below is an example of the operation of a Midpoint Peg Order with Time-in-Force instructions:

Security XYZ has a Match Event Interval to occur between 7 to 12 milliseconds apart.

The next Match Event is scheduled at 10:01:04:010.

At 10:01:04:000, Subscriber A submits a 1000 share Midpoint Peg buy order with a limit price of \$25.06 to participate in the Midpoint book for Security XYZ. Assume that the time period until the Midpoint Peg Order is automatically canceled for Security XYZ is 30 milliseconds.

At 10:01:04:005, Subscriber B submits a 500 share sell order with no limit price and a TIF of Day to participate in the Midpoint book for Security XYZ.

At the next scheduled Match Event for Security XYZ, (10:01:04:010), the matching engine retrieves the NBBO and determines that the NBBO is \$25.05 by \$25.07. The Midpoint price at the time of the Match Event is \$25.06 and is the Matching Price. Assuming that Subscriber A's and Subscriber B's orders have met the minimum resting period, Subscriber A will match 500 shares with Subscriber B at \$25.06 during the Match Event at 10:01:04:010. Subscriber A's remaining order for 500 shares is eligible to participate in any subsequent Midpoint Match Event occurring prior to the automatic cancellation of the order by the ATS at 10:01:04:030.

Primary Peg Orders

Primary Peg Orders are orders to buy at the NBB, or sell at the NBO, a stated amount of a security that are to be executed only in ASPEN. Orders may be submitted with or without a limit price. Primary Peg Orders may be displayed or non-displayed at the Subscriber's discretion. If a displayed Primary Peg Order would lock or cross contra-side interest displayed inside the ATS or as part of the NBBO, such order will be displayed one minimum price variation less aggressive than the price of displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of the contra-side of the NBBO, up to the order's limit price. 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 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 the NBBO, up to the order's limit price.

Marketable Peg Orders

Marketable Peg Orders are orders to buy at or below the NBO, or sell at or above the NBB, a stated amount of a security that are to be executed only in the ASPEN book. Orders may be submitted with or without a limit price. Marketable Peg Orders will be non-displayed.

Limit Orders

Limit Orders are orders to buy or sell a stated amount of a security at a specified price or better that are to be executed only in the ASPEN book during Regular Trading Hours, or in the Overnight Trading Session. Limit Orders may be displayed or non-displayed at the Subscriber's discretion. If During Regular Trading Hours, if a displayed Limit Order would lock or cross contra-side interest displayed inside the ATS or as part of the NBBO, such order will be displayed one minimum price variation less aggressive than the price of displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of the contra-side of the NBBO, up to the order's limit price. In the event the displayed contra-side interest inside the ATS or the NBBO updates during Regular Trading Hours, such order's displayed price will be updated to the most aggressive price permissible without locking displayed contra-side interest inside the ATS or 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 the NBBO, up to the order's limit price.

Market Orders

Market Orders are orders to buy or sell a stated amount of a security that is to be executed at or in between the NBBO only in ASPEN. Market Orders will be non-displayed.

Add Liquidity Only

Subscribers may designate orders as Add Liquidity Only ("ALO"). ALO orders are to be entered only in ASPEN. ALO orders are Limit or Primary Peg orders that rest on the order book instead of the order being able to execute against contra interests that are already on the book at the same price or better price. ALO orders will only interact with other orders if the ALO order would be adding liquidity. Generally, for two given orders the one received first by the matching engine will be deemed to be adding liquidity.

Time-in-Force

The ATS will accept orders with time-in-force instructions of Day, IOC, and Good Till Time. Day will be the default time-in-force instruction. Day orders will be held by the ATS on its books from the time of receipt until the end of either the Regular Trading Hours or the Overnight Trading Session (for Day Limit Orders submitted in the

Overnight Trading Session). If unfulfilled by the end of the Regular Trading Hours or the Overnight Trading Session, such Day orders will be canceled and the Subscriber who submitted the order will be notified. IOC orders in ASPEN will be held until the completion of the next Match Event, and if unexecuted, will be canceled. IOC in combination with the Midpoint Peg instruction is processed as a Midpoint Peg Order with Time-in-Force Instruction. IOC orders may be submitted with or without a limit price. IOC orders will be non-displayed. Good Till Time orders are eligible for use in the Midpoint book and Hosted Pools and will be held by the ATS on its books from the time of receipt for an amount of time specified by the Subscriber in milliseconds, and if unexecuted, will be canceled.

Not Held

All orders entered into the ATS by Subscribers are Not Held.

Open Orders

All open orders are canceled at the end of ~~the trading day~~ Regular Trading Hours. Open orders in the Overnight Trading Session are canceled at the end of the Overnight Trading Session (9:30 am ET), as described below and in Part III, Item 10.

Overnight Trading Session Order Types

The order types described above apply to Regular Trading Hours unless specified. During the Overnight Trading Session, the ATS accepts only Limit Orders. Market Orders, Midpoint Peg Orders, Primary Peg Orders, Marketable Peg Orders, and other pegged order types are not accepted during the Overnight Trading Session.

Time-in-Force

Limit Orders may be entered with a Time-in-Force instruction of Day, Immediate-or-Cancel ("IOC") or Good-Till-Time (for Hosted Pools only in the Overnight Trading Session). A Day instruction submitted to the Overnight Trading Session refers to the Overnight Trading Session (8:00 pm ET to 9:30 am ET). IOC orders are not accepted between 7:45 pm ET and 8:00 pm ET. Good-Till-Time instructions in the Overnight Trading Session only apply to Hosted Pools. A Good-Till-Time order expires at the earlier of its specified expiry time or the end of the Overnight Trading Session (9:30 am ET). Limit Orders may be designated displayed or non-displayed at the Subscriber's discretion, consistent with the ASPEN book. Displayed orders entered for the Overnight Trading Session are disseminated through the IQX Data Feed during the Overnight Trading Session, as described in Part III, Item 15.

Reference Price Bands for Overnight Trading Session

Because the Overnight Trading Session primarily operates during hours when the SIPs currently are not available to collect and disseminate consolidated market data, the ATS

does not reference the NBBO during the Overnight Trading Session as it does during Regular Trading Hours. Instead, the ATS applies a Reference Price Band to each NMS Stock enabled for trading during the Overnight Trading Session ("Reference Price Band"). The "Reference Price" for a security is the last national securities exchange print reported to the SIP for that security as of 7:30 pm ET. The Reference Price Band is a band of 20% above and below the Reference Price. The Reference Price Band for a security is determined prior to the open of the Overnight Trading Session and is static throughout the session. Where the ATS has not identified a Reference Price for a security, that security is not eligible for trading in that Overnight Trading Session and the ATS will reject all orders in the security for that Overnight Trading Session. The ATS accepts orders priced outside the applicable Reference Price Band, but such orders are not eligible to execute while priced outside the Reference Price Band. Displayed ASPEN Limit Orders that are not executable (e.g., outside of the Reference Price Bands) are not disseminated through the IQX Data Feed. An order priced outside the Reference Price Band rests on the order book and is cancelled at the end of the Overnight Trading Session if it has not executed. Subscribers can use the cancel/replace FIX message to alter the limit price of an order outside the Reference Price Band to be within the Reference Price Band and make such order eligible for execution, which will receive a new time stamp. The ATS will not be using the NBBO starting at 4:00 am ET and will continue to use the Reference Price Band until the end of the Overnight Trading Session, as described in Part III, Items 11 and 23.

Routing

See Part II, Item 5 and Part III, Item 16 for information about routing.

Message Priority

Incoming orders and related messages are processed in the order in which they are received by the ATS.

Match Priority

Please see Item 11 for a description of the ATS's match priority criteria.

Order Amendment

An open order may be amended by Subscribers to the extent the amendment is received by the ATS before a Match Event involving that order occurs. Order amendments are processed in the order in which they are received by the ATS. The match priority of an order will be preserved when amending the quantity of an order to a value less than the existing quantity of the order; however, the match priority of an order will be lost when amending the quantity of an order to a value greater than the existing quantity or when amending any other value in addition to the quantity of the order.

Order Cancellation

An open order may be canceled by Subscribers to the extent the cancellation order is received by the ATS before a Match Event involving that order occurs. Cancellation orders will cancel all remaining open quantity on an order. Cancellation orders are processed in the order in which they are received by the ATS.

Hosted Pools

The ATS may setup a Hosted Pool, only at the request of a Subscriber, where such Subscriber will designate that trading interest interact with other trading interest entered by that same Subscriber, or with other Subscribers participating in the same Hosted Pool. While the ATS does not restrict Subscribers from requesting to setup a Hosted Pool, the setup of a Hosted Pool is at the ATS' discretion and must be approved by the ATS. The ATS will determine whether or not to offer a Hosted Pool on a Subscriber-by-Subscriber basis. The determination is made by assessing, primarily, the expected order flow volume in the Hosted Pool of that Subscriber. Hosted Pools (both continuous and non-continuous as described in Part III, Item 11) will be eligible to participate in the Overnight Trading Session consistent with order types and attributes discussed above.

Each Hosted Pool is limited to the Subscriber on behalf of whom the Hosted Pool was setup and only those Subscribers that were invited by the Subscriber setting up the pool to participate in such Hosted Pool. The ATS does not determine the Subscribers invited to participate in a Hosted Pool. Subscribers are not subject to any specific quoting or liquidity requirements. The ATS, however, will periodically review the activity of each Subscriber in the Hosted Pool and may request that the Subscriber alter their activity (e.g., provide more order flow). Subscribers that fail to act in a manner that the ATS, in its discretion, deems satisfactory may lose access to the Hosted Pool service.

In addition, both the Subscriber setting up a Hosted Pool, and those Subscribers invited to participate in a Hosted Pool, are subject to the ATS' eligibility and exclusion requirements as described in Part III, Items 2 and 3.

The procedures for trading in a Hosted Pool are the same for all Subscribers. Subscribers may enter trading interest in either a principal or agency capacity. Subscribers have the option to designate a single order, conditional order, IOI, Block IOI, or VWAP Orders to interact in multiple Hosted Pools. The match event process, and processes for interacting in multiple Hosted Pools, are the same as when an order, conditional order, IOI, Block IOI, or VWAP Orders is designated to interact with a single Hosted Pool. If an order submitted to multiple Hosted Pools is executed in one Hosted Pool, the remaining quantity of the order will automatically be reduced by the executed amount across the Hosted Pools with which it is designated to interact.

All Hosted Pool orders configured for the Midpoint book will trade at the same midpoint price as the main Midpoint book or better.

All Hosted Pool orders configured for the ASPEN book will trade at prices determined by the orders present in those Hosted Pools at the time of the match, which may be different than the prices at which orders in the main ASPEN book may trade at (*i.e.*, in one ASPEN match event, there may be two trades in the same security printed at different prices).

For example, for a Hosted Pool order configured for the ASPEN book, assume the NBBO for Security XYZ is \$10.00 x \$10.04. A Hosted Pool contains a buy order at \$10.02 and a sell order at \$10.02. At the next scheduled Match Event, there will be a trade at \$10.02 in the ASPEN Hosted Pool. At the same time, if the main ASPEN book contains a buy order at \$10.01 and a sell order at \$10.01, there will be a trade at \$10.01 during the same Match Event.

Within the Hosted Pools, the ATS offers, at the request of the Subscriber that requested that the Hosted Pool be set up, a price improvement logic that will split any overlap in effective limit prices at a fixed level set for each Hosted Pool. For every trade in such a Hosted Pool, a specified percentage of the overlap will go to the liquidity provider and the remaining percentage will go to the liquidity taker (with the total percentage equaling 100%). The effective limit price for each order in the Hosted Pool is determined as the less aggressive of the peg instruction, limit price, and/or prevailing NBBO. For purposes of the Hosted Pools in this context, a liquidity provider is defined by time, where for two given orders the one received first will be deemed to be the liquidity provider to the second order by time, which becomes the liquidity taker, unless one of the orders has been sent with an instruction to only act as liquidity provider in a cross.

For example, suppose that the specified percentage is set at 75% of the overlap for liquidity provider and 25% for liquidity taker and suppose that a buyer has a posted order in a Hosted Pool at a limit price of \$10.01. Subsequently, a seller sends an order with a limit price of \$10.00, creating a \$0.01 overlap. The liquidity provider (the buyer) will receive 75% of the overlap and the liquidity taker (the seller) will receive 25% of the overlap, and these two orders will be crossed at a price of \$10.0025.

The ATS notifies each participant in such a Hosted Pool of the price improvement split, as well as any changes to such split, and each participant would agree to the price improvement split in order to participate in the Hosted Pool. The price improvement split for the Hosted Pool is determined entirely by the Subscriber that requested the Hosted Pool to be set up.

If a conditional order or VWAP Order submitted to multiple Hosted Pools results in an Invite, the conditional order or VWAP Order will be cancelled across the Hosted Pools with which it is designated to interact.

If a Block IOI order submitted to multiple Hosted Pools results in a Request for Commitment, the Block IOI will be cancelled across the Hosted Pools with which it is designated to interact.

When a Subscriber receives notice of an execution, Invite, or Request for Commitment, the message will identify the Hosted Pool generating such activity. An order designated to interact within a Hosted Pool(s) can be designated to only interact with that Hosted Pool(s) or can also be designated to interact with the liquidity outside the Hosted Pool(s) after checking for liquidity available in that Hosted Pool(s). The default state is for an order to only interact with that Hosted Pool(s).

Unless otherwise configured, the Hosted Pool would follow the Match Event Interval for Midpoint or ASPEN, as applicable. At the request of the Subscriber who has set up a Hosted Pool, such Hosted Pool may be configured with its own Match Event Interval, independent of the main book Match Event Intervals, as described in Part III, Item 11. The Match Event Interval may range from one (1) microsecond to thirty-five (35) minutes. The Match Event Interval applies uniformly across all securities traded in that Hosted Pool, *i.e.*, it will not be calibrated on a security-by-security basis. The actual match event time is randomized within the match event band throughout the course of the trading day, unless the minimum and maximum times are the same, acting as a fixed duration. At this time, no Hosted Pools are utilizing their own Match Event Intervals. The ATS will file any required amendments regarding Hosted Pools that will use their own Match Event Intervals and any required updates to such Match Event Intervals.

Where a Hosted Pool is configured with its own Match Event Interval, Match Events for that Hosted Pool occur independently of Match Events in the main books and other Hosted Pools; this is true even where interest is designated to interact with multiple Hosted Pools. During a Match Event, the matching engine will, in sequential order: (1) match orders eligible to be matched in the Hosted Pool(s) (regardless of if the orders are designated to interact with a single Hosted Pool or multiple Hosted Pools), and if so designated by the Subscriber submitting the order; then (2) match orders from the Hosted Pools with orders outside the Hosted Pools (in Midpoint or ASPEN). Any orders from a Hosted Pool designated to match with orders outside of a single Hosted Pool will be subject to the same match priority criteria as those orders outside of the Hosted Pool and will queue up with those orders for the purposes of the next Match Event in the Hosted Pool or applicable main book. Where a Hosted Pool is not configured with its own Match Event Interval, the Hosted Pool's Match Events will occur at the same time as the Midpoint or ASPEN Match Events for that security. For that Hosted Pool, there is only one Match Event across the applicable books and Hosted Pool at a time. Any Hosted Pools configured with their own Match Event Intervals will have separate Match Events.

The ATS' Hosted Pools also accept "Conditional Orders." Conditional Orders are not accepted outside of the ATS' Hosted Pools. The ATS' Hosted Pools permit the publication of indications of interest ("IOIs"), which allow participants of a Hosted Pool to send IOIs to any other participant of that Hosted Pool. IOIs contain symbol, side and size. See Part III, Item 9 for a discussion of Conditional Orders and IOIs.

Block IOIs

The ATS offers a Block IOI service in its Hosted Pools only to Sponsored Firms during Regular Trading Hours. The ATS, through the Block IOI service, informs Sponsored Firms of contra liquidity in a designated Hosted Pool by responding to IOIs sent by the Sponsored Firm. Block IOIs contain the same information as other IOIs in the Hosted Pools, *i.e.*, symbol, side and size. There also is no minimum size requirement applicable to the Block IOI service. Once informed of a possible match through the Block IOI process, the Sponsored Firm can send a firm order directly to the designated Hosted Pool in the ATS. Block IOIs and the associated processes are described further in Part III, Item 9.

VWAP Orders

The ATS accepts VWAP Orders in the IVWP book, and in Hosted Pools during Regular Trading Hours at the request of the Subscriber that requested that the Hosted Pool be set up. VWAP Orders are not available during the Overnight Trading Session. VWAP Orders have an execution price equal to a calculated volume-weighted average price ("VWAP") over a fixed time interval or floating (variable) time interval at the option of the Subscriber. VWAP Orders also offer an "Impute Match" feature, where an order with a fixed time interval can match against orders with a floating time interval.

Any Subscriber may submit VWAP Orders to the IVWP book. VWAP Orders in Hosted Pools are available to any Subscriber participating in a Hosted Pool that offers VWAP Orders.

VWAP Orders follow a similar workflow with regards to the invitation and firm up process as Conditional Orders (as discussed in Part III, Item 9) with certain exceptions. The primary differences include: (i) VWAP Order invitations are only on a one-to-one basis; (ii) VWAP Orders have a particular time frame in which to firm up; (iii) VWAP Order invitations include matched quantity; (iv) VWAP Order invitations include the fixed time or participation rate at which the order matched against a contra; (v) for Impute Match invitations will include either the matched participation rate or matched time depending on the equivalence determination; and (vi) short sale VWAP Orders are not accepted in short sale restricted securities.

Subscribers must send VWAP Orders with a quantity, as a limit order or market order, and either: (i) a minimum and maximum time for fixed time interval; (ii) a minimum and maximum participation rate for floating time interval; or (iii) for Impute Match, either (a) an instruction to Impute Match, and either a minimum and maximum time, or a minimum and maximum participation rate ("ATS Imputation", as defined below), or (b) parameters for both time and participation rate ("Subscriber Imputation", as defined below).

For fixed time intervals, the minimum order time is twenty (20) seconds ("System Minimum VWAP Time"), and each order's minimum match time must not exceed the maximum match time (which cannot exceed the end of the regular session) of the opposing order.

For floating time intervals, there is no minimum order time, and the minimum participation rate must not exceed the maximum participation rate of the opposing order.

By default, VWAP Orders will utilize broker preferencing, where among competing matches, a Subscriber's order will first match against that Subscriber's own orders by MPID. The ATS determines matches among eligible contras for VWAP orders as follows: (1) for fixed time orders, all orders priced greater than or equal to the far touch (satisfying marketability constraints) will be ranked equally by price, and matched using MPID (*i.e.*, broker preferencing), size, and time priority in that order; and (2) for floating time orders, all orders priced greater than or equal to the far touch (satisfying marketability constraints) will be ranked equally by price, and matched using MPID, size, participation rate, and time priority in that order. VWAP Orders only match with other VWAP Orders.

Impute Match uses estimated equivalences between fixed and floating time intervals to determine matches amongst eligible orders. For fixed time intervals, a specified match quantity over fixed time has an implied participation rate relative to market volume in the security for that interval. Similarly, a participation rate and match quantity has an implied time duration for that interval. Because market volume in the security is unknown at the time the match begins, both the implied participation rate for a fixed time match, and the implied time duration for a floating time match determined by participation rate, are estimated with equivalences. For the purposes of identifying potential matches using Impute Match, VWAP Orders can use either (i) an ATS-calculated Volume-Time Prediction ("ATS Imputed"), which is an ATS-calculated equivalence between fixed time and participation rate for each specific security, or (ii) Subscriber-determined equivalences ("Subscriber Imputed"). Both ATS and Subscriber Imputation are indicated on an order-by-order basis.

If Impute Match is enabled by the Subscriber for an order, the matching engine will attempt to find contras for the order within the minimum and maximum time, or the minimum and maximum participation rate, using either ATS or Subscriber equivalences, with Subscriber equivalences always taking precedence over ATS equivalences. Eligible matches among fixed time and floating time contras are determined according to the priority rules for fixed time and floating time respectively, and the ATS will always match an Impute Match on a fixed time interval if there is an available fixed time interval match.

An order that is not instructed to Impute Match may match against an order that is eligible to Impute Match, if the contra order (fixed or floating time interval) matches the contra order attributes of the non-imputed order.

Once a match is identified, invites are sent automatically by the ATS based on the priority stated above on a one-to-one basis, *i.e.*, only a single invite will be sent, which can generate a single firm up. Match quantity is the smaller of the two quantities of the two orders matched and match time or participation rate is the smaller of the two specified maximum order times or participation rates. Invitations include the match quantity and the applicable fixed time or participation rate for the match.

Both sides have up to 2,000 milliseconds to firm up by submitting a firm up order in response to the invite. The firm up order can be a limit or a market order. Market firm up orders have a single global price collar which acts as a risk control, applied at a set percentage through the far touch NBBO at firm up time. If one party does not firm up, the match is cancelled, and the party that has firmed up will receive a cancellation. If one party responds at or after 2,000 milliseconds, they will receive a rejection, and the VWAP Order and counterparty order is similarly cancelled. Only when both sides firm up, the match can occur, and both parties will receive a restatement message to indicate the start of the match.

Once the restatement has been sent by the ATS, the execution price calculation can begin. The VWAP is calculated by collecting all executed trades reported via the SIP (with the exception of particular condition codes, such as derivatively priced prints or auctions, among others) during a period of time, known as the "VWAP Calculation Interval". Pursuant to Rule 611 of Regulation NMS, for VWAP Orders, executions may occur outside of the prevailing NBBO.

For fixed time intervals, the VWAP Calculation Interval is set explicitly according to the smaller of the Subscriber specified maximum order times as described above, and both parties will receive a single VWAP execution at the end of the VWAP Calculation Interval with a corresponding single price in an execution report.

For floating time intervals, participation rate is a designated percentage of market volume and the total time of a floating time match is equal to the participation rate multiplied by market volume in the security following the start of a match (calculated from SIP trades using the same methodology as the execution price determination described above), and market volume in the security (and thus total match time) is unknown at the initiation of the match.

For floating time intervals, the match may thus receive one (1) or more prints to fill the matched quantity, with each print sent at a randomly determined print interval between 40 and 60 seconds, including the final print, representing a VWAP Calculation Interval. VWAP Calculation Intervals for floating time matches will start after the restatement, or in the case of multiple prints, the prior print time. Floating time interval orders will not print earlier than the randomly determined print interval; randomly determined print intervals will continue until the match quantity is complete unless cancelled; and orders cancelled before the first randomly determined match interval will receive no execution.

For VWAP Orders matched using the Impute Match feature, the prints will occur according to either the fixed time (end of the VWAP Calculation Interval) or at the randomized intervals, depending on whether the Imputed Match resolved to a fixed time or floating time.

A VWAP Order can be cancelled at any time. For orders on a fixed or floating time interval, if either firm up order is cancelled before the System Minimum VWAP Time for that VWAP Order, then no VWAP print will be returned and there will be no partial fill, and the remaining firm up order will be cancelled. If the firm up order is cancelled during

the VWAP Calculation Interval, and after the System Minimum VWAP Time, then for fixed time interval matches the quantity filled will be proportional to the elapsed VWAP time, and for floating time interval matches, the quantity filled will be proportional to the participation rate and market volume in the security to the time of the cancel. In both cases, the VWAP price will be the VWAP for the elapsed interval.

Any VWAP Calculation Intervals open at the end of the trading day will be terminated at the end of the regular session. For orders with a fixed time interval, a new match will not be initiated if the match will end at or beyond the end of the regular session (*i.e.*, the fixed time interval match must complete before the end of the regular session). For orders with a floating time interval, a new match will not be initiated after one (1) minute prior to the end of the regular trading session, allowing one final randomly determined interval (between 40 and 60 seconds) before the end of the regular session. For orders matching a minute or more before the end of the regular session, where a floating time interval might match after the end of the regular session, there will only be one final print in the last minute before the end of the regular session, before canceling the balance back to the Subscriber.

The minimum quantity of one (1) share must also be met to allow for a partial fill. In the event a security becomes subject to a trading halt or short sale restriction during the VWAP Calculation Interval, for both fixed time and floating time, the firm up orders will be cancelled and no executions will occur. Once a VWAP calculation has started, the only option is to cancel the VWAP Order, and no modifications can be made.

If the calculated VWAP price breaches the specified limit price for a fixed time VWAP Order, and this occurs prior to the System Minimum VWAP Time for that VWAP Order, then there will be no partial fills. If the breach occurs after the System Minimum VWAP Time for a fixed time VWAP Order, then the quantity filled will be proportional to the elapsed time, and the price will be the VWAP for the elapsed interval. The trade that caused the VWAP price to breach will be excluded from the VWAP calculation. If the calculated VWAP price breaches the specified limit price for a floating time VWAP Order, and this occurs prior to the next randomly determined VWAP interval, then the VWAP Order will be cancelled with no partial fills.

If there are fewer than two (2) trades during the VWAP Calculation Interval, then the midpoint of NBBO at the end of the interval will be used for the VWAP price for both floating time and fixed time matches; however, for floating time matches, if there are no trades in the VWAP Calculation Interval, there will be no execution.

If a trade correction/cancellation occurs for a trade that is part of the VWAP calculation, then the VWAP price for the VWAP Calculation Interval affected by the trade will need to be manually adjusted to reflect this event. If the adjustment would cause the VWAP price to violate a limit price constraint for either of the counterparties, then the VWAP print will be manually cancelled. These adjustments, if needed, will occur after the VWAP Order has already been reported to counterparties and printed to the tape.

IVWP Book

VWAP Orders submitted to IVWP support the full capabilities of VWAP Orders as described above, including fixed and floating time intervals, Impute Match, the invitation and firm-up process, VWAP Calculation Interval, cancellation behavior, and all related procedures.

The following features are available for VWAP Orders in the IVWP book:

- (1) Counterparty Selection: Subscribers may allow or prevent matching against a specific contra(s) in the IVWP book on a per order basis, as described further below in Part III, Item 14.
- (2) Minimum Quantity: Subscribers may specify a minimum execution quantity for VWAP Orders.
- (3) Maximum Quantity: Subscribers may specify a maximum execution quantity (MaxQty) for VWAP Orders.
- (4) Self-Match Prevention: Subscribers can configure their VWAP Orders to prevent self-crossing.
- (5) Agency/Principal/Riskless Principal Capacity: Subscribers may elect to block matching against riskless principal or principal orders.
- (6) Linked Orders: Subscribers may submit orders designated to cross against each other using a Link ID, as described in Part III, Item 14.

VWAP Orders submitted to the IVWP book cannot be designated to also interact with Hosted Pools, Midpoint or ASPEN. VWAP Orders cannot be submitted in the IVWP book during the Overnight Trading Session.

- b. Are the terms and conditions for each order type and attribute the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

* * * * *

Item 9: Conditional Orders and Indications of Interest

- a. Does the NMS Stock ATS send or receive any messages indicating trading interest (e.g., IOIs, actionable IOIs, or conditional orders)?

☒ Yes ☐ No

If yes, identify and explain the use of the messages, including information contained in messages (e.g., price or size minimums), how the message is

transmitted (e.g., order management system, smart order router, FIX), when the message is transmitted (e.g., automatically by the ATS, or upon the sender's request), the type of Persons that receive the message (e.g., Subscribers, Trading Centers), responses to conditional orders or IOIs (e.g., submission to firm-up conditional orders), and the conditions under which the message might result in an execution in the ATS (e.g., response time parameters, interaction, and matching).

Answer:

Conditional Orders

The ATS's Hosted Pools accept "Conditional Orders." The ATS does not accept Conditional Orders outside of the ATS' Hosted Pools and Conditional Orders cannot interact outside of the Hosted Pools.

A Conditional Order is an instruction to the ATS that the Subscriber wants to interact with the Hosted Pool on a conditional basis. A Conditional Order will contain symbol, side, size and a pricing instruction; the pricing instruction can be in the form of a Midpoint Peg Order (for Midpoint) and a Limit Order, a Market Order, or a Peg Order (for ASPEN).

A Conditional Order never executes; instead, in the event eligible contra-party interest exists in the Hosted Pool, whether such contra-party interest is a firm or Conditional Order, the ATS will cancel the Conditional Order, will notify the Subscriber submitting the Conditional Order via FIX (the "Invite"), and request that the Subscriber "firm-up" by submitting a firm order in response to the Invite ("Firm-Up Orders"). For purposes of determining whether to generate an Invite, only contra-side interest that would have permitted an execution at the time of the match (had both the Conditional Orders and contra-side interest been firm orders), including satisfying the Conditional Order's minimum quantity size requirement, are considered "eligible." A single eligible contra-side order may generate multiple Invites. For example, where two Conditional Orders are resting on the ATS and a single eligible contra-side order is submitted, both Conditional Orders will receive Invites.

A Firm-Up Order must contain the same symbol and side as the Conditional Order related to the Invite or it will be rejected by the ATS. A Firm-Up Order must be designated to interact with (1) the Hosted Pool, or (2) the Hosted Pool and then the liquidity outside the Hosted Pool after checking for liquidity in the Hosted Pool. A Firm-Up Order designated to interact with liquidity outside of the Hosted Pool will contain symbol, side, size and a pricing instruction. For Midpoint, the pricing instruction must be a Midpoint Peg Order and for ASPEN, the pricing instruction can be a Limit Order, a Market Order, or a Peg Order.

The Firm-Up Orders will have a time-in-force of one (1) second, after which any unfilled portion will be canceled. The Firm-Up Orders are treated like "standard" firm orders for matching and priority purposes. A Firm-Up Order does not need to be submitted within a specified time period after an Invite is sent.

Indications of Interest

The ATS' Hosted Pools also provides certain services relating to indications of interest ("IOIs").

IOIs

The ATS' Hosted Pools permit the publication of IOIs which allow participants of a Hosted Pool to send IOIs to any other participant of that Hosted Pool. IOIs contain symbol, side and size only.

Block IOI

The ATS provides a separate service from IOIs and Conditional Orders, a "Block IOI" service, only in the Regular Trading Hours Hosted Pools to (1) have the ATS inform non-Subscriber clients ("Sponsored Firms") of contra liquidity in a designated Hosted Pool by responding to IOIs sent by the Sponsored Firm to the ATS and (2) to allow such Sponsored Firms to send firm orders directly to the designated Hosted Pool via a sponsored access FIX session of a Subscriber sponsoring the Sponsored Firm ("Sponsor").

Similar to other IOIs in the ATS, Block IOIs contain symbol, side and size only. IOIs are ranked as they are entered into the ATS in the same manner as other trading interest in the ATS, *i.e.*, according to the ATS' match priority criteria. There also is no minimum or maximum size requirement specifically applicable to the Block IOI service. Block IOIs, which are generated by the Sponsored Firm, are not visible to any participant in Hosted Pools, in contrast to IOIs which participants in Hosted Pools can elect to generate and be made visible to other Hosted Pool participants.

Sponsored Firms may be authorized by multiple Sponsors and, as a result, Sponsored Firms are required to have a designated Sponsor for each firm order submitted. Sponsored Firms are clients of the Sponsor and not the ATS, and the Sponsor is responsible for all firm orders on which it is designated as Sponsor entered into the ATS by its Sponsored Firms.

Incoming IOI messages in the Block IOI service from the Sponsored Firm will be checked, in no particular order, against the following in the designated Hosted Pool for a possible match:

- Resting firm orders
- Conditional orders
- IOIs from other Sponsored Firms (generated from separate FIX sessions)

If there is contra-side interest in the Hosted Pool, a response, or "Request for Commitment" message, is sent back by the ATS to the Sponsored Firm. Partial amounts of the requested IOI size will generate a Request for Commitment. Only

one response will be sent for each IOI, unless the IOI is updated (*e.g.*, for a change in size), then, if applicable, another response will be sent.

In the Block IOI service, participants of the Hosted Pool - those who have firm or conditional orders - are not informed if there is a possible match (*e.g.*, if the IOI matches with a conditional order in the Hosted Pool, no invite is sent for that conditional order); only the sender of the IOI is informed of the possible match via the "Request for Commitment" message. If there is a match with an IOI from another Sponsored Firm, both IOIs will receive a Request for Commitment message. If there is no immediate contra liquidity or match, then the IOI remains active. IOIs, however, will be cancelled at the end of the day.

In addition, for the Block IOI service, every new marketable incoming order (firm and conditional) and IOI (from another Sponsored Firm) to the Hosted Pool with the same symbol and opposite side is compared with the IOI for a possible match. Every change to NBBO (which can change the set of marketable orders) also triggers a contra liquidity check for active IOIs (*i.e.*, IOIs that have not yet been responded to).

Also, if there is an update to an IOI, the IOI will receive a new timestamp and it is compared again with all applicable marketable orders in the Hosted Pool. In a situation where a Request for Commitment is sent out and the IOI is updated or canceled before a firm order committing shares is received, then the Request for Commitment will be cancelled, and if a firm order is sent, it will be rejected.

Finally, once informed of a possible match, the Sponsored Firm can send a firm order directly to the designated Hosted Pool, and the firm order must be associated with the particular Sponsor and the particular Request for Commitment. All firm orders sent will be subject to risk limits imposed on a Sponsored Firm by a Sponsor.

The ATS's Hosted Pools also accept "VWAP Orders." The ATS does not accept VWAP Orders outside of the ATS's Hosted Pools and the IVWP book, as described in Part III, Item 7.

VWAP Orders follow a similar workflow as Conditional Orders with regards to the invitation and firm up process with certain exceptions. VWAP conditional orders must be marketable to the far touch NBBO at the time of conditional match in order to generate an invite. Additionally, VWAP conditional market orders have a far touch limit price applied based off of the NBBO. For more information on VWAP Orders, please see Part III, Item 7.

- b. If yes to Item 9(a), are the terms and conditions governing conditional orders and indications of interest the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 10: Opening and Reopening

- a. Explain how the NMS Stock ATS opens or re-opens for trading, including when and how orders and trading interest are priced, prioritized, matched, and executed, and identify any order types allowed prior to the start of regular trading hours or following a stoppage of trading in a security during regular trading hours.

Answer:

The~~The~~During Regular Trading Hours, the ATS will open for trading in a given security when:

1. A transaction in the security has occurred and a trade has been reported on the consolidated tape;
2. There is at least one publicly-displayed limit buy and one publicly-displayed limit sell order for the security;
3. Regular Trading Hours have begun; and,
4. Valid LULD bands for the security have been publicly disseminated.

If an NMS Stock is halted for trading, the ATS will resume matching when:

1. It receives a message from the SIP indicating that trading has resumed in the security;
2. Valid LULD bands are present; and
3. An execution in that security has occurred and a trade has been reported on the consolidated tape.

Within the Hosted Pools, the ATS offers, at the request of the Subscriber that requested that the Hosted Pool be set up, a configuration to allow the Hosted Pool to begin trading coincident with the Primary Market Open for each security as reported on the consolidated tape.

Overnight Trading Session

The ATS opens the Overnight Trading Session at 8:00 pm ET on each day of operation. See Part III, Item 4. Because the Overnight Trading Session primarily operates when the national securities exchanges and SIPs are closed, the opening conditions applicable to Regular Trading Hours (e.g., a consolidated-tape print, publicly displayed buy and sell interest, and valid LULD bands) do not apply to the opening of the Overnight Trading Session. Orders received during the 7:45 pm ET-8:00 pm ET order-entry period are queued and time stamped once they are received (same as in the Regular Trading Hours Pre-Market Open Acceptance Period), and, beginning at 8:00 pm ET, become eligible to match at scheduled Match Events as described in Part III, Items 7 and 11. The Reference Price Band for each eligible security is determined prior to the 8:00 pm ET open.

- b. Are the processes and procedures governing opening and re-opening the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

- c. Explain how unexecuted orders and trading interest are handled at the time the NMS Stock ATS begins regular trading at the start of regular trading hours or following a stoppage of trading in a security during regular trading hours.

Answer: Orders received by the ATS during the Pre-Market Order Acceptance Period will be queued until the beginning of Regular Trading Hours and then matched at the first Match Event in each matching process (as defined in Part III, Item 11) based on priority as described in Part III, Item 11. Orders received outside these periods will not be accepted. In the event of a stoppage of trading during ~~Regular Trading Hours~~ the hours in which the SIP operates due to a trading halt, the ATS will cancel any unfilled orders already resting on its books and reject any new orders during the trading halt. The ATS will accept new orders when the trading halt is lifted. Any unfilled orders that remain open at the end of Regular Trading Hours will automatically be canceled.

All orders remaining on the order book at the end of the Overnight Trading Session (9:30 am ET) are cancelled (no orders carry over from the Overnight Trading Session into the Regular Trading Hours).

- d. Are the processes or procedures governing unexecuted orders and trading at the time the NMS Stock ATS begins regular trading at the start of regular trading hours, or following a stoppage of trading in a security during regular trading hours, the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

- e. Are there any differences between pre-opening executions, executions following a stoppage of trading in a security during regular trading hours, and/or executions during regular trading hours?

☐ Yes ☒ No

If yes, identify and explain the differences.

Item 11: Trading Services, Facilities and Rules

- a. Provide a summary of the structure of the NMS Stock ATS marketplace (e.g., crossing system, auction market, limit order matching book) and explain the means and facilities for bringing together the orders of multiple buyers and sellers on the NMS Stock ATS.

Answer:

The During the Regular Trading Hours, the ATS operates three different matching models: (1) a Midpoint book ("Midpoint") that only accepts non-displayed midpoint orders and executes orders at the midpoint of the prevailing NBBO at the time of the Match Event; (2) ASPEN (or the "Adverse Selection Protection Engine"), three limit order books with optional displayed capability (*i.e.*, orders in ASPEN may be marked by Subscribers as either displayed or non-displayed) which execute orders at prices that are at or between the prevailing NBBO at the time of the Match Event; and (3) IVWP, a non-displayed book that only accepts VWAP Orders and executes orders at a volume-weighted average price calculated over a fixed or floating time interval, as described in Part III, Item 7. Subscribers choose which matching model to which they send their orders. While the matching models operate under the same "market participant identifier" (or "MPID") - INCR - each matching model is distinct and does not interact with the other matching models. The Overnight Trading Session only operates the ASPEN book.

The ASPEN matching model has three distinct books distinguished by different fee structures - ASPEN Fee/Fee, ASPEN Maker/Taker and ASPEN Taker/Maker. All three books act independent of each other; orders resting in one book do not rest on or interact with orders resting in another book. All three ASPEN books also operate with different MIC codes: ASPEN Fee/Fee - ASPN; ASPEN Maker/Taker - ASMT; and ASPEN Taker/Maker - ASPI. The IVWP book operates with MIC code IVWP.

The Midpoint book only accepts Midpoint Peg Orders, which are not accepted in any of the ASPEN books or the IVWP book; orders in the Midpoint book will therefore not be displayed. The IVWP book only accepts VWAP Orders, which are not accepted in Midpoint or any of the ASPEN books; orders in the IVWP book will not be displayed. Any orders entered into IntelligentCross through any other order type (*e.g.*, Market Order, Limit Order, Primary Peg Order (with or without a limit price), and Marketable Peg Order (with or without a limit price)) will default to the ASPEN Fee/Fee book. A Subscriber who wishes to trade in the ASPEN Maker/Taker or Taker/Maker books, or the IVWP book, must affirmatively identify those books when entering their order. Subscribers can route to the different books by utilizing FIX tags to specify which book to send their order to, and can also request dedicated sessions to specific books.

During the Overnight Trading Session, as defined in Part III, Item 4, the ATS matches Limit Orders to buy and sell NMS Stocks using the same scheduled Match Event matching model used by the ASPEN book during Regular Trading Hours. Because the NBBO is unavailable the majority of the Overnight Trading Session, executions are priced at the resting order's limit price within the Reference Price Band. The ATS will continue to use the Reference Price Band until the end of the Overnight Trading Session, even though the SIP is available after 4:00 am ET. The Midpoint and IVWP books are not offered during the Overnight Trading Session.

- b. Are the means and facilities required to be identified in Item 11(a) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

- c. Explain the established, non-discretionary rules and procedures of the NMS Stock ATS, including order interaction rules for the priority, pricing methodologies, allocation, matching, and execution of orders and trading interest, and other procedures governing trading, such as price improvement functionality, price protection mechanisms, short sales, locked-crossed markets, the handling of execution errors, and the time-stamping of orders and executions.

Answer:

The ATS accepts orders in all NMS Stocks eligible for trading (*e.g.*, those that are not subject to a trading halt) and uses a matching mechanism which is near-continuous and that matches orders at scheduled times ("Match Events"). IVWP uses a separate matching process. The ATS' three different matching models - Midpoint, ASPEN, and IVWP - contain the following characteristics (any differences between the matching models will be noted accordingly).

Determination of Matching Schedule

Matching schedules are calculated using an optimization process that uses, among other things, historical performance measurements (as discussed below) from prior days' and/or current days' (in the case of Midpoint) matches. Each security has an individualized matching schedule, computed to maximize price stability after trades. The optimization process is data driven and takes into account stock by stock volatility, spreads, daily trading volume, price stability after trades and other market factors characteristic of how the specific stock recently traded in the market and on the IntelligentCross platform.

For ASPEN, matching schedules are calculated using an overnight optimization process that uses historical performance measurements from prior days' matches in the main ASPEN book. The overnight optimization process does not utilize historical performance measurements from matches from a Hosted Pool calibrated to the ASPEN book, nor from the Overnight Trading Session. Each day starts with a prepared matching schedule for each security that does not change throughout the day or the Overnight Trading Session.

For Midpoint, the matching schedule for a security may change overnight, or during the trading day if the ATS's machine-learning process determines that such change is appropriate to maximize price stability after trades. For Midpoint, while the matching schedule for a security may change during the trading day, the model governing the optimization process does not change throughout the trading day. The optimization process takes into account publicly available market data such as

prior SIP trades and NBBO quotes. The optimization process does not utilize data from matches from a Hosted Pool calibrated to the Midpoint book.

The IVWP book does not use Match Event Intervals. Instead, IVWP uses VWAP Calculation Intervals to determine when executions occur. A VWAP Calculation Interval defines the period over which the ATS calculates the volume-weighted average price used for execution. IVWP supports two VWAP Calculation Interval configurations:

Fixed Time Interval. The VWAP Calculation Interval is a fixed duration specified at order entry. The execution time is determined at the time the order is matched, *i.e.*, once an order is paired with a contra-side order, the VWAP Calculation Interval begins and the execution will occur at the end of that interval at the calculated VWAP price.

Floating Time Interval. The VWAP Calculation Interval is defined by a target percentage of the stock's consolidated volume. The execution time will vary based on the time required for the stock to print the volume specified by the order's percentage-of-volume instruction on the consolidated tape. Once a match is identified, the VWAP Calculation Interval begins and concludes when the target volume has been printed.

The ATS's Impute Match uses estimated equivalences between fixed and floating time intervals to determine matches among eligible orders. The Impute Match for IVWP will operate the same as it does for VWAP Orders in the Hosted Pools. See Part III, Item 7. Additionally, for VWAP Orders with floating time interval instructions, if the match completes its full target volume before the VWAP Calculation Interval elapses, then the execution can occur at or after as the System Minimum VWAP Time and before the VWAP Calculation Interval. However, if a counterparty cancels the match before the System Minimum VWAP Time, then no fill is returned. See Part III, Item 7.

There is no human intervention or discretion involved in any change to the matching schedule during the trading day, and any such change does not alter any conditions (including price) of any orders nor is it aware of or responsive to any customer specific information.

Match Events in each security occur at scheduled times as determined by the ATS' matching algorithm. Match schedules are defined by "minimum/maximum time bands" for each security ("Match Event Intervals"). Midpoint has Match Event Intervals between 150 microseconds and up to 200 milliseconds that are calibrated on a security-by-security basis. ASPEN's Match Event Intervals can have a minimum time of 150 microseconds and a maximum time of 900 microseconds (*i.e.*, the maximum time for scheduling a match event is capped at 900 microseconds), also calibrated on a security-by-security basis. 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. The actual match event time is randomized within the match event band throughout the course of the trading day.

Execution of Orders and Match Events

Any order for a security that arrives prior to a Match Event for that security (and that has not been canceled, has become unmarketable, or has been repriced prior to the match event) will be eligible to participate in the next Match Event. Match Events are scheduled continuously while the IntelligentCross book is in a "matchable state" (*i.e.*, there is an order on each side eligible to match); if there are no orders for a stock in the book, no Match Event will be scheduled. An incoming order that will make the book potentially matchable will trigger a scheduling of a Match Event if one has not already been scheduled.

The matching process is completely symmetric, *i.e.*, the match times within IntelligentCross are not chosen to favor a particular side of the trade. No Subscribers (or non-Subscribers accessing IntelligentCross through a Subscriber) are given any type of priority through the matching process, and the matching process is blind to the identity of the Subscriber (or a non-Subscriber accessing IntelligentCross through a Subscriber). Both sides of the trade (buyers and sellers) are on equal footing for the next scheduled match, while maintaining full control of their orders - both sides can cancel or update their orders at any time prior to the match.

Open orders may be amended to the extent the amendment is received before a match event involving that order occurs. Order amendments are processed in the order in which they are received by the ATS. The match priority of an order will be preserved when amending the quantity of an order to a value less than the existing quantity of the order; however, the match priority of an order will be lost when amending the quantity of an order to a value greater than the existing quantity or when amending any other value in addition to the quantity of the order.

An open order also may be canceled to the extent the cancellation order is received before a match event involving that order occurs. The ATS will automatically update its quotations, and all quotation updates, including those due to new or canceled orders, are immediate.

Midpoint Match Event Intervals

At each Match Event for each security in Midpoint, the matching engine for the Midpoint book will retrieve the current NBBO and check its book for orders that can be matched. Orders eligible for matching will be matched in time priority at the NBBO midpoint price at the Match Event. The purpose of the scheduled matches is to achieve two objectives: (1) provide for as many matches as possible

to maximize liquidity; and (2) match at times where the NBBO is projected to be as stable as possible for a period of time after executions occur on the ATS. During the time between Match Events, Subscribers have full order control and can cancel or reprice orders until the next Match Event.

The ATS then analyzes the possible executions that can occur on the ATS and adjusts the Match Event Interval to achieve the two objectives described above. The optimization process takes into account publicly available market data such as prior SIP trades and NBBO quotes. The optimization process is data driven and takes into account stock by stock volatility, spreads, daily trading volume, price stability after trades and other market factors characteristic of how the specific stock recently traded in the market and on the IntelligentCross platform.

The ATS makes a determination as to whether the Match Event Intervals for each security should be increased, decreased, or stay the same. The Match Event Intervals per security are adjusted after enough data points have been accumulated to warrant an adjustment. The Match Event Intervals for Midpoint may be recalibrated throughout the day. Registered Persons of the ATS review and approve such changes.

ASPEN Match Event Intervals

ASPEN will have Match Event Intervals between 150 and 900 microseconds that are calibrated on a security-by-security basis. The process for determining the Match Event Intervals for ASPEN is similar to that for Midpoint but Match Event Intervals are calibrated separately such that, for any given security, the Match Event Intervals for ASPEN will be different from the Match Event Intervals for Midpoint. The Match Event Intervals for the three ASPEN books will be the same for a given security.

The ATS makes a daily determination as to whether the Match Event Intervals for each security should be increased, decreased, or stay the same. For the Overnight Trading Session, the scheduling of Match Events is the same as the schedule used in the prior Regular Trading Hours. Any changes based on the overnight optimization process will not be implemented until the start of the Regular Trading Hours the following day.

Midpoint Minimum Resting Period

For Midpoint, only orders that have rested on the order book for a minimum period of time are eligible to match. "Minimum Resting Periods" are determined by the ATS and set in a stock-specific fashion, similar to Match Events. The purpose of these periods is to further reduce adverse selection. However, in no event will the minimum resting period exceed 200 milliseconds. There are no Minimum Resting Periods for orders on ASPEN.

Anti-Internalization

The ATS provides an "anti-internalization" setting to its Subscribers. This setting can be enabled upon client request and will prevent the self-matching of two orders from the same Subscriber on the ATS's order books. This setting will not be enabled by default, but can be enabled upon Subscriber request and will be enforced by the Client ID setting. Subscribers can either contact IntelligentCross Trading Operations to enable this functionality on an MPID basis or they can configure the trading systems to prevent self-crossing at a client or trading desk level.

Locked or Crossed Market

TheDuring Regular Trading Hours, the ATS will not match if the NBBO as determined by the SIP and/or SRO proprietary data feeds for the stock is crossed (where the NBB price exceeds the NBO price) or if the NBBO as determined by the SIP and/or other SRO proprietary data feeds is locked (where the NBB price equals the NBO price). 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 the contra-side of the NBBO, up to the order's limit price. 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 the NBBO, up to the order's limit price.

Locked or crossed markets do not occur during the Overnight Trading Session. All orders entered during the Overnight Trading Session reside on the ASPEN book and there is no NBBO reference, therefore a buy order priced at or above the best resting offer, or a sell order priced at or below the best resting bid, results in an execution rather than a locked or crossed market.

Sub-Dollar Pricing

For orders in Midpoint, in the event that the NBB is less than \$1.00, the ATS will execute orders at the midpoint price, regardless of the number of decimal places.

For orders in ASPEN during Regular Trading Hours, in the event that the NBB is less than \$1.00, the ATS will execute orders at valid prices within the NBBO. For orders in the Overnight Trading Session, in the event that the Reference Price is less than \$1.00, the ATS will execute orders at valid prices within the Reference Price Bands.

For orders in IVWP, in the event that the NBB is less than \$1.00, the ATS will calculate the VWAP price from eligible trades on the consolidated tape in the same manner as for stocks with an NBB at or above \$1.00. The resulting execution price may include more than four decimal places.

Orders Eligible for Matching

With respect to the Midpoint book, the following orders will be eligible for matching during a Match Event:

1. Midpoint Peg Orders that are buy orders with limit prices equal to or higher than NBBO midpoint.
2. Midpoint Peg Orders that are sell orders with limit prices equal to or lower than NBBO midpoint.
3. Midpoint Peg Orders without limit prices.

Midpoint Peg Orders also may be designated with Time-in-Force instructions.

With respect to the ASPEN books, the following orders will be eligible for matching during a Match Event:

1. Primary Peg Orders with no limit price or those with limit prices that are within the prevailing NBBO at the time of a Match Event.
2. Market Peg Orders with no limit price or those with limit prices that can execute within the prevailing NBBO at the time of a Match Event.
3. Limit Orders with limit prices that are within the prevailing NBBO at the time of a Match Event.
4. Market Orders.

Match Priority Criteria

Midpoint Match Priority Criteria

In Midpoint, orders eligible for matching will be matched in time priority at the NBBO midpoint price at the Match Event. Only orders that have rested on the Midpoint book for a minimum period of time (*i.e.*, the Midpoint Minimum Resting Period) are eligible to match. An order on the Midpoint book for less than its Midpoint Minimum Resting Period would not be eligible to participate in any Match Events but would be eligible for all subsequent Match Events after satisfying its Midpoint Minimum Resting Period.

Following are some examples of how the IntelligentCross match priority criteria works for the Midpoint book.

Example 1: The assumptions include:

- The NBBO for Security XYZ is \$10.10 x \$10.12

- Subscriber A has a resting Midpoint Peg Order to sell 100 shares of Security XYZ with a limit of \$10.11.
- Subscriber B has submitted a Midpoint Peg Order to buy 100 shares of Security XYZ with a limit of \$10.11.
- The Midpoint book enters into a "matchable state" (*i.e.*, there is an order on each side eligible to match) and a Match Event is scheduled.
- Security XYZ has a Match Event Interval between 1000 to 1300 microseconds, and in this example the Match Event is scheduled to occur in 1100 microseconds.
- During the 1100 microseconds, Subscriber C has submitted a Midpoint Peg Order to buy 100 shares of Security XYZ with a limit of \$10.11.
- At the next scheduled Match Event for Security XYZ, the matching engine retrieves the NBBO and determines that the NBBO is still \$10.10 by \$10.12. As a result, the following executions occur during the Match Event (assuming all orders have met the Midpoint Minimum Resting Period):
- Subscriber A will match 100 shares with Subscriber B at \$10.11.
- Subscriber C's order will not match with Subscriber A as orders will be matched in time priority at the NBBO midpoint price at the Match Event. Subscriber C's order will be eligible for the next Match Event.

Example 2: Assume in the above Example 1 that Subscriber C has submitted a Midpoint Peg Order to buy 100 shares of Security XYZ with limit of \$10.12. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at \$10.11.

While Subscriber C has submitted a more aggressively priced order, Subscriber C's order will not match with Subscriber A as orders in Midpoint will be matched in time priority at the NBBO midpoint price at the Match Event. Subscriber C's order will be eligible for the next Match Event.

ASPEN Match Priority Criteria

In ASPEN, both Regular Trading Hours and Overnight Trading Session, orders eligible for matching will be matched based on price, display type (*i.e.*, with respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders), and the time at which such orders are received relative to other orders. Such match priority now applies throughout the matching process, *i.e.*, before and after the ASPEN book enters into a matchable state.

Any order for a security that arrives prior to a Match Event for that security (and that has not been canceled, has become unmarketable, or has been repriced prior to the match event) will be eligible to participate in that Match Event. In addition, in Match Events, at the time of execution, price improvement (if there is any) will be provided to the order with the later effective timestamp between two orders receiving an execution, *i.e.*, the taker.

Examples

Following are some examples of how the IntelligentCross match priority criteria works for the ASPEN book.

Example 1: The assumptions include:

- Subscriber A has submitted a displayed 100 share sell limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.
- Subscriber B has submitted a displayed 100 share buy limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.
- Subscriber B's order will be displayed at \$9.99 as, in ASPEN, if a displayed limit order would lock contra-side interest inside the ATS, such order will be displayed one minimum price variation less aggressive than the price of the displayed contra-side interest inside the ATS.
- The ASPEN book enters into a "matchable state" (*i.e.*, there is an order on each side eligible to match) and a Match Event is scheduled.
- Security XYZ has a Match Event Interval between 175 to 250 microseconds, and in this example the Match Event is scheduled to occur in 180 microseconds.
- During the 180 microseconds (*i.e.*, after the ASPEN book enters into a matchable state) and before the Match Event occurs, Subscriber C submits a non-displayed 100 share sell limit order with a limit price of \$9.99 and TIF of Day for Security XYZ.

At the next scheduled Match Event for Security XYZ, the matching engine retrieves the NBBO and determines that the NBBO is \$9.99 by 10.00. As a result, the following executions occur during the Match Event:

- Subscriber B will match 100 shares with Subscriber C at \$10.00, as Subscriber C has the more aggressively priced order, and Subscriber C (*i.e.*, the taker) will be price improved and will receive an

execution. Subscriber A's order will be eligible for the next Match Event.

Example 2: Assume in the above Example 1 that Subscriber B had 200 shares to buy. At Match Event time:

- First, Subscriber C will match 100 shares with Subscriber B at \$10.00 as Subscriber C has the more aggressively priced order, and Subscriber C (*i.e.*, the taker) will be price improved and will receive an execution.
- Second, Subscriber A will match 100 shares with Subscriber B at \$10.00.

Example 3: Assume in the above Example 1 that during the 180 microseconds (*i.e.*, after the ASPEN book enters into a matchable state) and before the Match Event occurs, Subscriber C cancels its order. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at \$10.00 (*i.e.*, there is no change to this example due to the change in match priority criteria).

Example 4: Assume in the above Example 1 that:

- Subscriber A has submitted a non-displayed 100 share sell limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.
- Subscriber C has submitted a displayed 100 share sell limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.

At Match Event time:

- Subscriber C will match 100 shares with Subscriber B at \$10.00.
- Subscriber A will not match as, with respect to ASPEN, at each price level, displayed orders (Subscriber C) will have priority over non-displayed orders (Subscriber A).

Example 5: Assume in the above Example 1 that:

- Subscriber A has submitted a non-displayed 100 share sell limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.
- Subscriber B has submitted a displayed 100 share sell limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.

- Subscriber C submits a non-displayed 100 share buy limit order with a limit price of \$10.00 and TIF of Day for Security XYZ.

At Match Event time:

- Subscriber C will match 100 shares with Subscriber B at \$10.00
- Subscriber A will not match as, with respect to ASPEN, at each price level, displayed orders (Subscriber B) will have priority over non-displayed orders (Subscriber A).

Reference Price Bands; Pricing in Overnight Trading Session

As described in Part III, Item 7, the ATS does not reference the NBBO during the Overnight Trading Session and instead applies a 20% Reference Price Band derived from the 7:30 pm ET Reference Price. The ATS accepts orders priced outside the applicable Reference Price Band, but does not execute any order at a price outside the Reference Price Band. Those orders outside of the Reference Price Band rest and may execute only at prices within the Reference Price Band. Orders that are not executable are not disseminated through the IQX Data Feed as described in Part III, Item 15.

IVWP Match Priority Criteria

The IVWP book accepts only VWAP Orders. The ATS continuously evaluates resting VWAP Orders in the IVWP book for eligible contra-side matches. For fixed time orders, all orders priced greater than or equal to the far touch (satisfying marketability constraints) will be matched using MPID, size, and time priority. For floating time orders, all orders priced greater than or equal to the far touch (satisfying marketability constraints) will be matched using MPID, size, participation rate, and time priority. VWAP Orders in the IVWP book only match with other VWAP Orders in the IVWP book and do not interact with orders in Midpoint or ASPEN.

When an eligible contra match is identified, the ATS initiates the invitation and firm-up process as described in Part III, Item 7. Once both counterparties have firmed up, the VWAP Calculation Interval begins. The mechanics of the VWAP Calculation Interval, including execution price determination, cancellation behavior, partial fills, limit price breaches, and end-of-day procedures, are as described in Part III, Item 7. IVWP matching operates independently of the Match Events used by Midpoint and ASPEN.

For the avoidance of doubt, orders submitted to the IVWP book will match in an all-to-all context with broker preferencing, where among competing matches, a Subscriber's orders will first match against that Subscriber's own orders, then against other orders in the IVWP book. Subscribers who agree to identify the

sources of their order flow sent to IVWP (*e.g.*, Algo, SOR, DMA) and receive a unique identifier for those sources will be provided with a list of other Subscribers that have similarly agreed to such identification, and their respective flow types (the "IVWP Subscriber Roster"). The IVWP Subscriber Roster is prepared by the ATS, distributed to authorized Subscribers in a secure manner, and includes the ATS-generated unique identifier for counterparty selection, the Subscriber's MPID, and the Subscriber's self-identified source of order flow. Such identifications are for the purpose of defining counterparty selection preferences.

The IVWP Subscriber Roster is provided solely for the purpose of enabling Subscribers to define counterparty selection preferences in the IVWP book, specifically to allow Subscriber to specify orders to only interact with certain types of order flow (*e.g.*, Algo, SOR, DMA) from specific Subscribers. The IVWP Subscriber Roster is not distributed to Subscribers not participating in IVWP, Subscribers participating in IVWP who have not agreed to identify the sources of their order flow, non-Subscribers, or other third parties. Subscribers may opt-in to counterparty selection preferences at any time. The use of this functionality is optional, and is not required to participate in the IVWP book.

General Match Priority Criteria Information

The match priority criteria in a Hosted Pool are the same as in the ATS main books as applicable, unless the Hosted Pool is configured with a specific match priority criteria excluding VWAP orders in Hosted Pools. There is no Minimum Resting Period for any order type in a Hosted Pool.

Each Hosted Pool may be configured with one of the following match priority criteria, at the request of the Subscriber that requested that the Hosted Pool be set up, which determines how orders are prioritized during a Match Event, and applies to all Match Events in that Hosted Pool. At this time, no Hosted Pools are utilizing such specific match priority criteria. The ATS will file any required amendments regarding Hosted Pools that will use specific match priority criteria and any required updates to such criteria. The match priority criteria are:

- Price/Time (default). Orders are matched in price/time priority, meaning that orders eligible for matching will be matched based on price and then the time at which such orders are received relative to other orders.
- Pro-Rata by Size. Orders eligible for matching at the same price are allocated a proportion of the contra quantity based on their relative size.
- Price-Size. Orders eligible for matching at the same price are ranked by their size, where larger orders have higher priority, and filled according to their ranked size ordering.
- Random. Orders eligible for matching at the same price are re-ranked in random priority at the time of the Match Event, and filled sequentially according to the randomized ordering.

- **Random Weighted.** Orders eligible for matching at the same price are re-ranked according to a random weighting by participant, and filled sequentially according to the weighted random ordering. Weights are determined at the request of the Subscriber that requested that the Hosted Pool be set up (for example, weights could be based on Subscriber preference, or on historical participant activity in that specific Hosted Pool as determined by internal ATS data, which is not shared with the Subscriber that requested that the Hosted Pool be set up) and can be updated periodically by the request of the Subscriber that requested that the Hosted Pool be set up.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber, where orders are designated to interact within multiple Hosted Pools, the ability to set a configured preference for the sequence of the Hosted Pools in which the Subscriber's orders will interact within those multiple Hosted Pools, as additionally described in Part III, Item 7. For example, if the Subscriber wants to configure the sequencing to first go to Hosted Pool B, then Hosted Pool A, then the order will first match with the match priority criteria designated (for example, price/time priority) in Hosted Pool B, and, if the order has not been fully executed, then it will proceed to Hosted Pool A and match according to the match priority criteria in such Hosted Pool.

Such sequencing, as described above, may supersede the match priority criteria for, and therefore the prices received by, a particular order in the Hosted Pools. For example, orders in Hosted Pools can be made eligible to access both continuous and non-continuous Hosted Pools. In such cases, an order tagged for both a continuous and a non-continuous Hosted Pool will first interact with the continuous Hosted Pool and, if the order is not fully executed in such Hosted Pool, it will then interact with the non-continuous Hosted Pool, *i.e.*, continuous Hosted Pools will have preference for matching over non-continuous Hosted Pools.

Matching instructions are specified in accordance with the FIX protocols described above in Part III, Item 5 and defined by industry standard FIX tags defined for these matching instructions.

Orders received by the ATS during the Pre-Market Order Acceptance Period will be queued until the beginning of Regular Trading Hours. Orders received outside these periods will not be accepted unless they are submitted to the Overnight Trading Session. For all eligible securities, the ATS will only execute if Limit-Up-Limit-Down ("LULD") bands are present and the effective price of a potential match is not constrained by a LULD band. Orders executed during the Overnight Trading Session are subject to the Reference Price Bands described above.

For purposes of the operation of the ATS, all orders will be timestamped upon receipt by the ATS in nanoseconds; however, the ATS has the ability to provide order records in microseconds or milliseconds via FIX.

An amendment of an outstanding order will affect its match priority and Minimum Resting Period as follows:

1. If an order's size is decreased, its timestamp will remain the same, its priority will not change and it will not wait through a new Minimum Resting Period (in the case of Midpoint).
2. If an order's size is increased, the timestamp will be renewed, its priority will change and, if part of Midpoint, it will wait through a new Minimum Resting Period.
3. If an order's price is changed, the timestamp will be renewed, its priority will change and, if part of Midpoint, it will wait through a new Minimum Resting Period.

IntelligentCross conducts trading strictly in an agency capacity on the ATS. IntelligentCross does not conduct trading in a proprietary capacity.

Non-Match Events

Situations may occur where an incoming order may not execute against a resting order at match event time, such as when:

- (1) an existing resting order cancels prior to the next match event
- (2) an incoming order is canceled prior to the next match event
- (3) 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
- (4) 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

Execution Errors

The ATS has written supervisory policies and procedures in place to handle trade execution errors and "clearly erroneous trades." Each potential error situation will be evaluated by the ATS's personnel on a case by-case basis.

If a trade is transacted in error and it is determined that the error was due to a system failure or other issue with the ATS's platform that resulted in a poor execution (*i.e.*, outside the NBBO), the ATS will contact each of the Subscribers associated with the error cross trade and inform them that the ATS is canceling the trade. The ATS will then initiate the cancel on the ATS and communicate with the respective FINRA TRF the trade report cancellation for each side of the cross trade. In the instances in which the trade was good (*i.e.*, inside the NBBO), and as a result of a systems issue, the ATS failed to acknowledge the execution to one of the two

Subscribers associated with the error cross trade transacted on the ATS, the ATS will contact the affected Subscriber and ask whether or not they want to maintain (keep) the trade. If the Subscriber does not want to maintain the trade, the ATS will take the affected Subscriber's position and book it to IntelligentCross' error account. IntelligentCross will then instruct IntelligentCross' clearing broker to trade out of the error position. An IntelligentCross employee will book the error position and subsequently close-out the transaction through IntelligentCross' error account for settlement purposes and document within IntelligentCross' systems all details regarding the error transaction(s). The error transaction detail will include all details surrounding the error trade(s) and subsequent close-out trades (if any). The detail will also include an identification of all associated parties, the cause/reason for the error, or details surrounding Subscriber contact(s). The error trade detail will then be reviewed and electronically signed off as "compliance review" by the CCO or his designee and subsequently reviewed and signed off on as "Supervisory Review" by IntelligentCross' CEO or his/her supervisory principal designee.

The ATS will also ensure accurate CAT reporting.

With respect to a market wide event that may contain clearly erroneous transaction, the ATS monitors all email notification regarding clearly erroneous transactions. Upon receipt of a clearly erroneous e-mail notification, the ATS will immediately review the ATS's trading activity during the relevant timeframe to determine whether or not the ATS traded the securities referenced in the notification. The ATS will then take immediate action (if any executions have been identified through the review) to reverse the trades upon the ATS and the respective FINRA TRF. A file in IntelligentCross' systems will be created that documents any FINRA TRF reversals that have been performed as a result of a clearly erroneous notification.

The ATS's written supervisory procedures for execution errors and clearly erroneous transactions also apply to the Overnight Trading Session.

Order Entry Restrictions

The ATS will not accept orders that reference a symbol not authorized for trading (e.g., if there is a trading halt). The minimum price variation ("MPV") for orders received by the ATS during both the Regular Trading Hours and Overnight Trading Session shall be \$0.01 for orders priced \$1.00 or greater, and \$0.0001 for orders priced below \$1.00. Orders received with increments below the MPV will be rejected.

Sell orders must be designated as long, short or short exempt in the event there is a short sale restriction in place during both the Regular Trading Hours and the Overnight Session. Subscribers are responsible for the compliance of their trades with all short sale locate and delivery rules and regulations.

Anonymity

All orders and executions are anonymous as to and between Subscribers. Subscribers are only made aware of IntelligentCross as a party or contra-party on orders and executions.

The ATS does not provide any means of communication between Subscribers. There is no negotiation, chat, instant message, indication of interest, "Flash Order," or similar functionality provided.

Hosted Pools

The ATS may setup a Hosted Pool, at the request of a Subscriber, where such Subscriber will designate that an order interact with other orders entered by that same Subscriber, or other Subscribers participating in the same Hosted Pool. Hosted Pools are described in more detail in Part III, Items 7 and 9. An order designated to interact within a Hosted Pool can be designated to only interact with that Hosted Pool or can also be designated to interact with liquidity outside the Hosted Pool after checking for liquidity available in that Hosted Pool, as described further in Part III, Item 7. An order designated to interact with liquidity outside the Hosted Pool in the ASPEN book cannot be displayed.

Unless otherwise stated, the ATS' matching and trading rules applies to the Hosted Pools in the same manner as the ATS. An order designated to interact within a Hosted Pool that also is designated to interact with liquidity outside the Hosted Pool does not receive a new timestamp when determining eligibility to match against orders in the main book. Orders and order modifications are timestamped on arrival and those timestamps do not change. An order that is eligible to match in the main book after checking for liquidity available in a Hosted Pool complies with the priority rules in the main book based on its timestamp.

The match priority criteria in a Hosted Pool are generally the same as in the ATS main books, excluding those Hosted Pools configured with specific match priority criteria as described in this Item. In ASPEN Hosted Pools, orders eligible for matching will be matched based on price and the time at which such orders are received relative to other orders (as orders designated to interact with other orders in a Hosted Pool are not eligible to be displayed orders). In the ASPEN main book, orders eligible for matching will be matched based on price, display type (*i.e.*, with respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders), and the time at which such orders are received relative to other orders. Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, the ability to configure a Hosted Pool such that all participants of the Hosted Pool must preference their own firm orders in a multi-broker Hosted Pool prior to being eligible to match against other broker orders. Such a configuration is set on the entire Hosted Pool and not on an order-by-order basis.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, to specify that matching should be continuous in an individual Hosted Pool. If the Hosted Pool is marked as continuous, orders are matched immediately after each new order, replace or NBBO update is received, if the new event makes corresponding continuous pool orders matchable. This continuous matching functionality is only available in Hosted Pools and is different than, and without regard to, the near-continuous matching mechanism in the main ATS books. Orders in Hosted Pools also can be made eligible to access both continuous and near-continuous Hosted Pools. In such cases, an order tagged for both a continuous and a near-continuous Hosted Pool will first interact with the continuous Hosted Pool and, if the order is not fully executed in such Hosted Pool, it will then interact with the near-continuous Hosted Pool, *i.e.*, continuous Hosted Pools will have preference for matching over near-continuous Hosted Pools.

Subscribers participating in a Hosted Pool may request that orders designated for the Midpoint book and the ASPEN book have the ability to interact with each other inside the Hosted Pool. When such an option is selected, any eligible orders will interact at each Match Event, regardless if the next Match Event is for Midpoint book-eligible orders or ASPEN book-eligible orders. The Block IOI service offered in the Hosted Pool is available for the Midpoint book only.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber, where orders are designated to interact within multiple Hosted Pools, the ability to set a configured preference for the sequence of the Hosted Pools in which the Subscriber's orders will interact within those multiple Hosted Pools. Such sequencing may supersede the match priority criteria for, and therefore the prices received by, a particular order in the Hosted Pools.

Within the Hosted Pools, the ATS offers the ability to allow or prevent the matching of orders according to custom keys specified by a Subscriber via FIX tags. See Part III, Item 14 for more information. This functionality allows a Subscriber to control which orders can match with other orders in a Hosted Pool. For example, a buy order sent with a "prevent" instruction and a key equal to "1 2 3", will not be able to match against an order that includes a key of either "1", "2" or "3." Conversely, a buy order with an "allow" key of "4 5" can only match with orders containing a key of either "4" or "5".

Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, a price improvement logic that will split any overlap in effective limit prices at a fixed level set for each Hosted Pool. For every trade in such a Hosted Pool, a specified percentage of the overlap will go to the liquidity provider and the remaining percentage will go to the liquidity taker (with the total percentage equaling 100%). The effective limit price for each order

in the Hosted Pool is determined as the less aggressive of the peg instruction, limit price, and/or prevailing NBBO.

For example, suppose that the specified percentage is set at 75% of the overlap for liquidity provider and 25% for liquidity taker and suppose that a buyer has a posted order in a Hosted Pool at a limit price of \$10.01. Subsequently, a seller sends an order with a limit price of \$10.00, creating a \$0.01 overlap. The liquidity provider (the buyer) will receive 75% of the overlap and the liquidity taker (the seller) will receive 25% of the overlap, and these two orders will be crossed at a price of \$10.0025.

- d. Are the established, non-discretionary rules and procedures required to be identified in Item 11(c) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

* * * * *

Item 15: Display

- a. Does the NMS Stock ATS operate as an Electronic Communication Network as defined in Rule 600(a)(23) of Regulation NMS?

☐ Yes ☒ No

- b. Are Subscriber orders and trading interest bound for or resting in the NMS Stock ATS displayed or made known to any Person (not including those employees of the NMS Stock ATS who are operating the system)?

☒ Yes ☐ No

If yes, explain the display procedures, including how and when Subscriber orders and trading interest are displayed, how long orders and trading interest are displayed, what information about orders and trading interest is displayed, and the functionality of the Broker-Dealer Operator and types of market participants that receive the displayed information.

Answer:

For ASPEN, the ATS offers the IQX Data Feed, which displays orders eligible to be displayed in real-time to IQX Data Feed Recipients. Subscribers, in their discretion, may submit Limit Orders and Primary Peg Orders as displayed orders. Displayed orders from all three ASPEN books are available in the IQX Data Feed. Each of the ASPEN books have individualized data feeds; as such, subscribers to the IQX Data Feed can choose to consume data from whichever books they choose through separate feed identifiers.

TheDuring Regular Trading Hours, the ATS will not display Limit Orders and Primary Peg Orders that lock or cross contra-side interest that is displayed (1) inside the ATS or (2) as part of the NBBO as determined by the SIP and/or SRO proprietary data feeds. Instead, if a displayed Limit Order or Primary Peg Order would lock or cross displayed contra-side interest inside the ATS or as part of the NBBO, such order will be displayed one minimum price variation less aggressive than the price of displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of the contra-side 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 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 the NBBO.

During the Overnight Trading Session, a Subscriber may designate a Limit Order as displayed or non-displayed. Displayed orders within the Reference Price Bands entered for the Overnight Trading Session are disseminated through the IQX Data Feed during the Overnight Trading Session, over separate ports, on the same basis as displayed orders during Regular Trading Hours. Non-displayed orders and orders outside of the Reference Price Bands are not included in the IQX Data Feed.

For all displayed orders, the ATS disseminates all eligible bids and offers along with the size available (full depth of book) in the IQX Data Feed as part of ASPEN. The IQX Data Feed also disseminates all executions that occur in ASPEN - displayed and non-displayed - in real-time. The execution information includes the price and number of shares executed.

Orders designated by a Subscriber to interact with other orders in a Hosted Pool are not eligible to be displayed orders. Executions occurring in a Hosted Pool are not disseminated in the IQX Data Feed. An order designated to interact within a Hosted Pool can also be designated to interact with liquidity outside the Hosted Pool after checking for liquidity in a Hosted Pool. When an ASPEN order that is designated to interact in both a Hosted Pool and the ATS main book is filled in the ATS main book, such an order is disseminated in the IQX Data Feed and will be reported to the consolidated tape via the TRF.

The ATS' Hosted Pools accept "Conditional Orders." Conditional Orders are not accepted outside of the ATS' Hosted Pools. Conditional Orders are not visible to Hosted Pool participants. A Conditional Order never executes. In the event eligible contra-party interest exists in the Hosted Pool, whether such contra-party interest is a firm or Conditional Order, the ATS will cancel the Conditional Order, will notify the Subscriber submitting the Conditional Order via FIX (the "Invite"), and request that the Subscriber "firm-up" by submitting a firm order in response to the Invite ("Firm-Up Orders").

The ATS' Hosted Pools also permit the publication of indications of interest ("IOIs"), which allow participants of a Hosted Pool to send IOIs to any other participant of that Hosted Pool. IOIs contain symbol, side and size. Participants in Hosted Pools can elect to generate IOIs and IOIs would be made visible to other Hosted Pool participants.

The ATS accepts VWAP Orders in the IVWP book and in Hosted Pools. VWAP Order invites include match quantity, match time or match rate.

Orders in the IVWP book are not eligible to be displayed and are not disseminated in the IQX Data Feed. Executions occurring in the IVWP book are not disseminated in the IQX Data Feed.

The ATS also offers a Block IOI service in its Hosted Pools, the purpose of which is to inform Sponsored Firms of contra liquidity in a designated Hosted Pool and to allow Sponsored Firms to send firm orders directly to a designated Hosted Pool via a sponsored access FIX session of a Sponsor. Participants with firm or conditional orders in the Hosted Pool are not informed if there is a possible match (*e.g.*, if the IOI matches with a conditional order in the Hosted Pool, no invite is sent for that conditional order); only the sender of the IOI is informed. In addition, Block IOIs, which are generated by the Sponsored Firm, are not visible to any participant in Hosted Pools, in contrast to IOIs which participants in Hosted Pools can elect to generate and be made visible to other Hosted Pool participants.

Orders may be sent to the ATS through the SOR, and thus, the SOR is aware of a Subscriber's order information being sent to the ATS (symbol, size, side, price). The SOR accesses the IQX Data Feed on the same terms as any other recipient of the IQX Data Feed. The DMA provider has knowledge of the Subscriber's order information (symbol, size, side, price) being sent by the SOR through the DMA provider to access the ATS. The DMA is prohibited from sharing such information outside of its organization.

- c. If yes to Item 15(b), are the display procedures required to be identified in 15(b) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

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Item 18: Trading Outside of Regular Trading Hours

- a. Does the NMS Stock ATS conduct trading outside of its regular trading hours?

☒ Yes ☐ No

- b. If yes to Item 18(a), are there any differences between trading outside of regular trading hours and trading during regular trading hours in the NMS Stock ATS?

☒ Yes ☐ No

If yes, identify and explain the differences.

Answer:

In addition to trading during Regular Trading Hours, the ATS conducts an Overnight Trading Session that is open for order entry beginning at 7:45 pm ET and conducts trading from 8:00 pm ET to 9:30 am ET the following business day, as described in Part III, Item 4. During the Overnight Trading Session the ATS accepts only Limit Orders, with Time-in-Force instructions of Day, IOC, or Good-Till-Time (Good-Till-Time is only available in Hosted Pools), entered via a dedicated FIX session, as discussed in Part III, Items 5 and 7. Additionally, the ATS does not reference the NBBO and instead applies a Reference Price Band derived from the 7:30 pm ET Reference Price, and orders priced outside the Reference Price Band are accepted but do not execute outside the Reference Price Band, as discussed in Part III, Items 7, 11, and 23. During the Overnight Trading Session, the ATS matches orders using the same scheduled Match Event model used by the ASPEN book during Regular Trading Hours, except that:

- All open orders are cancelled at the end of the Overnight Trading Session (9:30 am ET) and do not carry over into Regular Trading Hours, as discussed in Part III, Item 10;
- Transactions are reported to a FINRA TRF with the ATS's MPID (INCR) once the FINRA TRFs open for the trading day and in real time thereafter, as discussed in Part III, Item 21; and
- Securities subject to a trading halt as of the close of Regular Trading Hours, or to certain corporate actions effective the following morning, as discussed in Part III, Item 20, are not eligible for trading in the Overnight Trading Session.

Overnight operational support is provided by the Overnight Support Provider under the supervision of IntelligentCross Registered Persons, as discussed in Part II, Items 6 and 7.

- c. If yes to Item 18(a), is the treatment of orders and trading interest outside of regular trading hours the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 19: Fees

- a. Identify and describe any fees or charges for use of the NMS Stock ATS services, including the type of fees (e.g., subscription, connectivity), the structure of the fees

(e.g., fixed, volume-based, transaction-based), variables that impact the fees (e.g., types of securities traded, block orders, form of connectivity to the ATS), differentiation among types of Subscribers (e.g., broker-dealers, institutional investors, retail) and range of fees (e.g., high and low).

Answer: For the Midpoint book and the ASPEN Fee/Fee book (for Regular Trading Hours), the Base Rate charged by IntelligentCross is .0008 per share for each side of a transaction.

The Base Rate for ASPEN Maker/Taker is (.0028) rebate per share for Subscribers that provide liquidity and .0030 per share fee for Subscribers that remove liquidity.

The Base Rate for ASPEN Taker/Maker is (.0016) rebate per share for Subscribers that remove liquidity and .0020 per share fee for Subscribers that provide liquidity.

The ATS does not have a standard fee schedule associated with the Overnight Trading Session. Orders executed in the Overnight Trading Session are charged fees in a range from (.0030) rebate per share to .0030 fee per share. The fees associated with the Overnight Trading Session are negotiated fees, and may be re-evaluated from time to time. Factors considered when negotiating fees may include but are not limited to historical trading volume and patterns, anticipated trading volume and patterns, and the characteristics of the orders (for example, whether the orders are retail or institutional in nature, or whether the Subscribers are liquidity takers or liquidity providers).

The ATS does not have a standard fee schedule associated with the Hosted Pool. Orders executed in a Hosted Pool, for both the Regular Trading Hours and Overnight Trading Session, are charged fees in a range from (.0030) rebate per share to .0030 fee per share. The fees associated with the Hosted Pool are negotiated fees, and may be re-evaluated from time to time. Factors considered when negotiating fees may include but are not limited to historical trading volume and patterns, anticipated trading volume and patterns, and the characteristics of the orders (for example, whether the orders are retail or institutional in nature, or whether the Hosted Pool participants are liquidity takers or liquidity providers).

The Base Rate for the IVWP book differs based on whether a transaction is internalized or executed against another Subscriber. For internalized trades--i.e., transactions in which the buyer and seller are the same Subscriber--IntelligentCross charges \$0.0001 per share for each side of the transaction. For cross-broker trades--i.e., transactions in which the buyer and seller are different Subscribers--IntelligentCross charges \$0.0005 per share for each side of the transaction at the base rate, with volume-tiered rates per side based on the Subscriber's cross-broker average daily volume (ADV) in the IVWP book:

Subscriber's monthly cross-broker ADV in IVWP book Rate per share, per side

Base rate	\$0.0005
Greater than or equal to 1,000,000 shares	\$0.0004
Greater than or equal to 5,000,000 shares	\$0.0003
Greater than or equal to 10,000,000 shares	\$0.0002

Volume-tiered rates apply retroactively to all cross-broker shares traded by the Subscriber in the IVWP book for that calendar month. Internalized trades are charged at the \$0.0001 per side rate regardless of volume and are not counted toward the cross-broker volume tier thresholds. The IVWP volume tiers are independent of the Subscriber Fee Discount described in Part III, Item 19(c) and are calculated solely on cross-broker volume in the IVWP book.

The fees for the Block IOI service and other sponsored access arrangements will be the same as the standard ATS fees which otherwise apply to Subscriber activity. Fees are charged to Subscribers only and fees are not directly billed to Sponsored Firms.

The ATS does not charge a separate fee for the IntelligentCross SOR routing functionality as described in Part III, Item 16.

The other fees incurred by Subscribers of the ATS are SRO fees and fees charged by our clearing provider, Instinet.

The ATS passes through certain regulatory fees (including FINRA's Section 3 fee and Trading Activity Fee ("TAF") for Subscribers who are not FINRA members), and fees billed to the ATS for Subscribers through third-party providers for accessing market data. The ATS is the CAT Executing Broker for both the buyer and the seller on all trades it executes and is charged CAT fees accordingly, which it then passes through to Subscribers.

- b. Identify and describe any fees or charges for use of the NMS Stock ATS services that are bundled with the Subscriber's use of non-ATS services or products offered by the Broker-Dealer Operator or its Affiliates, including a summary of the bundled services and products, the structure of the fee, variables that impact the fee, differentiation among types of Subscribers, and range of fees.

Answer: N/A

- c. Identify and describe any rebate or discount of fees or charges required to be identified in Items 19(a) and 19(b), including the type of rebate or discount, structure of the rebate or discount, variables that impact the rebate or discount, differentiation among types of Subscribers, and range of rebate or discount.

Answer: With respect to trading in the Midpoint book and the ASPEN Fee/Fee book (for Regular Trading Hours), there are two ways existing ATS Subscribers can pay lower fees, ("Subscriber Fee Discount"), as described below:

1. Total Composite Volume (TCV) Incentive*--if average daily participation of TCV is:

<u>TCV %</u>	<u>Commission rate per share traded</u>
=> 12 bps of TCV	2 mils per share
=> 10 bps of TCV	3 mils per share
=> 8 bps of TCV	4 mils per share
=> 4 bps of TCV	6 mils per share
=> Base Rate	8 mils per share

***Criteria**

- The Base Rate is the same for all Subscribers.
- Any Subscriber Fee Discount Rate will be calculated retroactively on all shares traded for that calendar month.
- TCV is the total market volume in all NMS Stocks reported to the Consolidated Tape.

2. Active Order Incentive**

Live in 200 to 500 unique symbols at a time (on average) 6 mils per share

Live in 501 to 1000 unique symbols at a time (on average) 4 mils per share

Live in 1001 to 2000 unique symbols at a time (on average) 3 mils per share

Live in over 2001 unique symbols at a time (on average) 2 mils per share

****Criteria**

- Orders must be marketable: (1) priced at or more aggressive than the NBBO midpoint for the Midpoint book and (2) priced at or more aggressive than the NBBO for the ASPEN Fee/Fee book.
- IntelligentCross will monitor open orders every few minutes to calculate the average unique symbols in the book on a daily basis.
- If minimum quantity ("MinQty") present, must be less than or equal to 100 shares.

- Not be an IOC Order.
- Rate will be calculated retroactively on all shares traded for that calendar month.
- If a Subscriber is live for a symbol in both Midpoint and ASPEN Fee/Fee, it will count twice for purposes of qualifying for the Active Order Incentive.

Trading in ASPEN Maker/Taker, ASPEN Taker/Maker, Hosted Pools, and the IVWP book will not be taken into account for purposes of qualifying for the Subscriber Fee Discount. If a Subscriber qualifies for a Subscriber Fee Discount, the pricing will apply to their trading activity in both the Midpoint book and ASPEN Fee/Fee book. The ATS can offer the Subscriber Fee Discount to allow new Subscribers to receive the Subscriber Fee Discount and pay the lowest fee charged to any existing Subscriber based on the above criteria.

Item 20: Suspension of Trading

- Explain any procedures for suspending or stopping trading on the NMS Stock ATS, including the suspension of trading in individual NMS stocks.

Answer: ~~The~~

During Regular Trading Hours, the ATS is programmed to react to "halt" or "pause" messages it receives from the SIP from all U.S. equities exchanges. It will not execute transactions in a security during periods in which trading in the security is halted (e.g., subject to a LULD trading pause, single stock circuit breaker, or regulatory halt). The ATS will also halt trading if it is determined that the ATS is experiencing system issues that require such action.

Overnight Trading Session

Because the national securities exchanges and SIPs are closed during the majority of the Overnight Trading Session, the ATS does not receive real-time halt or pause messages from the SIP during majority of the session. Instead: (i) a security that is subject to a trading halt on an exchange or by SEC order as of the end of SIP operating hours is not eligible for trading in the immediately following Overnight Trading Session, and any securities that become subject to a trading halt or pause once the SIP restarts real-time halt or pause messages the following day will immediately be halted; (ii) a security subject to an applicable corporate action effective the following morning (for example, reverse splits, CUSIP changes, name changes, new listings, delistings, spin-offs, mergers, and suspensions) is not eligible for trading in the Overnight Trading Session; and (iii) the ATS may suspend trading in one (1) or more securities or in all securities, via disabling the security or securities, at its discretion (e.g., internal system issues, technology or operational issues, and regulatory or exchange issues). In addition,

where the ATS has not identified a Reference Price for a security, that security is not eligible for trading in the Overnight Trading Session. When the ATS suspends or halts trading in a security during the Overnight Trading Session, it cancels all orders for that security.

- b. Are the procedures for suspending or stopping trading the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 21: Trade Reporting

- a. Explain any procedures and material arrangements for reporting transactions on the NMS Stock ATS, including where an ATS reports transactions and under what circumstances.

Answer:

Once an execution occurs, the ATS will send electronic messages containing execution reports to the originators of the order as well as the Nasdaq Trade Reporting Facility. The NYSE Trade Reporting Facility is used as a back-up. VWAP Orders reported by the ATS uses the appropriate modifiers for volume weighted average price.

Transactions effected during the Overnight Trading Session are reported to the Nasdaq TRF, with the ATS's MPID (INCR) as executing broker. Because the TRFs are not available to accept trade reports at the start of the Overnight Trading Session, transactions effected during the Overnight Trading Session before the TRFs opens are reported when the TRFs open for the trading day, and transactions effected thereafter are reported in real time. Overnight Trading Session events are reported to FINRA/CAT under the same CAT reporting timeframes applicable to Regular Trading Hours events.

- b. Are the procedures and material arrangements for reporting transactions on the NMS Stock ATS the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 22: Clearance and Settlement

- a. Describe any procedures and material arrangements undertaken to facilitate the clearance and settlement of transactions on the NMS Stock ATS (e.g., whether the ATS becomes a counterparty, whether it submits trades to a registered clearing agency, or whether it requires Subscribers to have arrangements with a clearing firm).

Answer:

IntelligentCross has an agreement with Instinet, LLC, a member of the National Securities Clearing Corporation, to act on behalf of IntelligentCross to clear and settle all transactions executed on the ATS, and Instinet submits the ATS' executions to NSCC for clearing and to DTC for settling. All Subscribers must have clearing brokers that are NSCC/DTC members. IntelligentCross is a counterparty to all trades on the ATS and Subscribers know only that IntelligentCross was the counterparty to their trade.

Clearance and settlement of transactions effected during the Overnight Trading Session are facilitated in the same manner as transactions effected during Regular Trading Hours, through Instinet, LLC, the ATS's clearing firm, which submits the ATS's executions to NSCC for clearing and to DTC for settlement. The ATS provides trade information for the Overnight Trading Session to Instinet via a real time drop copy session. As during Regular Trading Hours, the ATS is the counterparty to all trades, and all Subscribers must have clearing arrangements with NSCC/DTC members.

- b. Are the procedures and material arrangements undertaken to facilitate the clearance and settlement of transactions on the NMS Stock ATS the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

Item 23: Market Data

- a. Identify the sources of market data used by the NMS Stock ATS (e.g., proprietary feed from a national securities exchange, feed from the securities information processor ("SIP")), and how the ATS uses market data from these sources to provide the services that it offers, including how the ATS uses market data to determine the NBBO and protected quotes, and display, price, prioritize, execute, and remove orders and trading interest on the ATS.

Answer: The~~The~~During Regular Trading Hours, the ATS uses a combination of SIP and direct feeds to determine the NBBO and to price executions. If direct feeds are available and utilized by the ATS, they will be used to price the NBBO. If a direct feed that the ATS utilizes is deemed not reliable, it will use the SIP price from that exchange. The ATS utilizes the direct feeds from the following exchanges:

- CBOE BZX; CBOE BYX; CBOE EDGX; CBOE EDGA
- NYSE; NYSE Arca
- Nasdaq; Nasdaq BX; Nasdaq PSX
- IEX

- MEMX

For VWAP executions in Hosted Pools, the volume-weight average price is based on SIP trades.

The Overnight Trading Session primarily operates when the SIPs are not available and, accordingly, the ATS does not determine or reference the NBBO during the Overnight Trading Session. The ATS instead uses, as the Reference Price for each NMS Stock, the last national securities exchange print reported to the SIP (via CTS and UTDF) for that security as of 7:30 pm ET, which is used to establish the Reference Price Band described in Part III, Items 7 and 11. The ATS will not be using the NBBO starting at 4:00 am ET and will continue to use the Reference Price Band until the end of the Overnight Trading Session.

- b. Are the sources of market data and how the NMS Stock ATS uses market data for the services that it offers the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

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