

**Part I: Identifying Information**

**Item 8:** Attach as Exhibit 1, the most recently filed or amended Schedule A of Form BD for the Broker-Dealer Operator disclosing information related to direct owners and executive officers.

**Schedule A –Direct Owners**

Full Legal Name	CRD / Tax ID	Entity Type	Roles	Date Role Acquired	Ownership %	Control Person	Public Reporting Company
NB Holdings Corporation	56-1857749	Domestic Entity	Sole Stockholder	05/2019	75 or more	Y	N
Rae, Glen Alexander	6300829	Individual	Chief Legal Officer	08/2019	Less than 5	N	N
Guardino, Joseph Anthony Jr	2907957	Individual	Chief Operations Officer & FINOP	09/2015	Less than 5	N	N
Alam, Syed Faruqe	2394838	Individual	Chief Financial Officer	09/2019	Less than 5	N	N
Zuberi, Soofian J Jalil	2372292	Individual	Director & Chief Executive Officer	02/2022	Less than 5	Y	N
Chepuvavage, Laura P	4672504	Individual	Director	02/2022	Less than 5	Y	N
Gadkari, Sarang Rajan	2522409	Individual	Director	02/2022	Less than 5	Y	N
Magasiner, Andrei Grischa	4368115	Individual	Director	02/2022	Less than 5	Y	N
Bhatia, Kashyap P	6110368	Individual	Chief Compliance Officer/Broker-Dealer	08/2022	Less than 5	N	N
Bliss, Claire Renee	6588570	Individual	Chief Compliance Officer/Registered Investment Adviser	09/2022	Less than 5	N	N

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

**Item 1: Broker-Dealer Operator Trading Activities on the ATS**

a. Are business units of the Broker-Dealer Operator permitted to enter or direct the entry of orders and trading interest (e.g., quotes, conditional orders, or indications of interest) into the NMS Stock ATS?

Yes  No

If yes, name and describe each type of business unit of the Broker-Dealer Operator that enters or directs the entry of orders and trading interest into the ATS (e.g., NMS Stock ATS, type of trading desks, market maker, sales or client desk) and, for each business unit, provide the applicable MPID and list the capacity of its orders and trading interest (e.g., principal, agency, riskless principal).

**Instinct X accepts orders and conditional placements. Unless otherwise noted, the term "orders" includes Instinct X Closing Cross ("IXCC") Orders, which are described further in Part III, Items 4, 7, 11, and 17, and Trajectory Cross Orders, which are described further primarily in Part III, Items 7 and 11. Responses to questions regarding ATS trading interest refer to conditional placements. Instinct X accepts both orders and conditional placements for Trajectory Cross, as described further in Part III, Items 7 and 11.** References to "Customer" in this Form ATS-N represent non-broker-dealers. References to "Clients" in this Form ATS-N represent Customers and broker-dealers.

The following BofA Securities, Inc. ("BofAS") business units are permitted to enter orders and conditional placements into Instinct X. Each business unit is part of the Global Banking and Markets ("GBAM") Division of Bank of America Corporation ("BAC"). These business units can enter orders and conditional placements in a principal, agency, or riskless principal capacity. All GBAM orders and conditional placements: (i) are received by Instinct X under the market participant identifier ("MPID") "MLCO"; (ii) are routed to Instinct X based on determinations made by a BofAS sales or trading desk, a BofAS algorithm, or the BofAS smart order router ("SOR"); and (iii) are treated as principal orders if routed in a principal or riskless principal capacity. Note, orders and conditional placements that a BofAS algorithm determines to route to Instinct X can only access Instinct X after passing through the BofAS SOR.

**EQUITY EXECUTION SERVICES ("EES")** - EES trades equities, ETFs, swaps, and options on behalf of Clients as agent or principal. EES is comprised of the following desks: (1) Core Cash, (2) Portfolio, (3) NYSE Floor Brokerage, (4) ETF Trading, and (5) Central Risk Book. EES may route orders and conditional placements to Instinct X in a principal, agency, or riskless principal capacity.

**EQUITY CLIENT SOLUTIONS ("ECS")** - ECS handles: (1) agency orders in equity-derivative instruments on behalf of BofAS Clients, (2) principal orders in

**connection with the facilitation of Client orders, and (3) principal orders to establish or unwind hedge positions taken in connection with Client facilitation trades. ECS consists of the desks that handle equity and equity-derived products including: (1) Index, (2) Single Name, (3) Corporates, (4) Exotics, (5) Investable Indices, (6) Equity Structured Finance, (7) Corporate Actions, (8) Convertibles Primary; (9) Convertibles Secondary, and (10) Emerging Markets. ECS routes orders and conditional placements to Instinct X in a principal capacity.**

**EQUITY SYNTHETICS AND SECURITIES LENDING ("ESSL") - ESSL trades equities, ETFs, swaps, and options on behalf of BofAS Clients as agent or principal. ESSL consists of the Swaps and Stock Loan Desks. ESSL routes orders and conditional placements to Instinct X in a principal capacity.**

**ELECTRONIC TRADING ("ET") - ET offers BofAS Clients a wide range of electronic order handling and execution services on its platform, including BofAS algorithmic trading products, the BofAS SOR, third-party external market access gateways (i.e., separate from BofAS's internal electronic trading technology), and access to Instinct X. ET may route orders and conditional placements to Instinct X through its platform in a principal or agency capacity.**

b. If yes to Item 1(a), are the services that the NMS Stock ATS offers and provides to the business units required to be identified in Item 1(a) the same for all Subscribers?

Yes  No

If no, explain any differences in response to the applicable Item number in Part III of this form, as required, and list the applicable Item number here. If there are differences that are not applicable to Part III, explain those differences here.

**Business units cannot enter orders or conditional placements directly into Instinct X via a FIX connection (See Part III, Item 5(a) for a discussion of Direct and Indirect Subscribers to Instinct X). Rather, business units can enter orders only using a BofAS algorithm or the BofAS SOR.**

c. Are there any formal or informal arrangements with any of the business units required to be identified in Item 1(a) to provide orders or trading interest to the NMS Stock ATS (e.g., undertaking to buy or sell continuously, or to meet specified thresholds of trading or quoting activity)?

Yes  No

If yes, identify the business unit and respond to the request in Part III, Item 12 of this form

d. Can orders and trading interest in the NMS Stock ATS be routed to a Trading Center operated or controlled by the Broker-Dealer Operator?

Yes  No

If yes, respond to request in Part III, Item 16 of this form.

### **Part III: Manner of Operations**

#### **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.

Instinct X accepts orders, including IXCC Orders, and conditional placements. Thus, conditional placements are the only trading interests accepted by Instinct X. See Part III, Item 9 for a full description of conditional placements (except conditional placements designated for the Trajectory Cross, which are described below and in Part III, Item 11). Instinct X accepts IXCC Orders designated for the IXCC. This Part III, Item 7 describes only non-IXCC Orders. IXCC Orders and their handling are discussed below in Part III, Item 17. This section first discusses non-Trajectory Orders, then separately discusses Trajectory Orders.

## NON-TRAJECTORY ORDERS

**ACCEPTABLE ORDER TYPES, TIME-IN-FORCE INSTRUCTIONS, AND ATTRIBUTES** As a general matter, all Instinct X order types are available across all forms of connectivity to Instinct X; however, a Subscriber's determination to use particular order types will vary based on the Subscriber's trading and execution objectives. Instinct X accepts the following order types: (i) MARKET -- an order to buy or sell immediately at the best available price; (ii) LIMIT -- an order to buy or sell at a specified price or better; and (iii) PEGGED -- an order to buy or sell at a price relative to a reference benchmark price. Instinct X offers the following Pegged order types: (i) Midpoint Peg -- an order that is pegged to the midpoint of the Best Bid and Offer ("BBO") (See Part III, Item 23 for a description of how the BBO is calculated); (ii) Primary Peg -- an order that is pegged to the BBO on the same side of the market (i.e., near touch); and (iii) Market Peg -- an order that is pegged to the BBO on the opposite side of the market (i.e., far touch). Instinct X offers three discretionary order types that can be used with certain limit or Pegged orders, which are described further below. Instinct X offers the following time-in-force ("TIF") instructions: (i) IMMEDIATE-OR-CANCEL ("IOC") -- This instruction generally means that Instinct X must immediately execute all or part of the order upon receipt and cancel any unfilled part of the order. Instinct X offers a conditional placement-eligible attribute that is described below. If this attribute is applied to an Instinct X order that has a TIF of IOC, to the extent the order matches with a conditional placement, the order--notwithstanding its IOC designation--will be reserved (i.e., not cancelled, but ineligible for matching with any other orders or conditional placements) for the shorter of the time it takes for the counterparty's conditional placement to respond to a Firm-Up Invite or the expiration of the preset period to respond. Conditional placement-eligible orders are described further in Part III, Item 9. (ii) DAY -- This instruction means that all or any unexecuted residual of an order expires at the end of the trading day.

The following are order attributes that may affect whether and how orders and/or conditional placements in Instinct X match.

BofAS Subscribers can elect to apply a Minimum Quantity ("MinQty") attribute to their orders, which represents the minimum quantity of an order that Instinct X can execute

against a single counterparty. The default MinQty behavior with respect to a partially executed order is for Instinct X to designate a new MinQty equal to the leaves quantity when the leaves quantity falls below the original MinQty. Alternatively, Subscribers can request an unsolicited cancel of the leaves quantity should the quantity fall below the original MinQty. For orders and conditional placements other than IXCC and Trajectory Orders, BofAS Subscribers that elect to apply a MinQty attribute can choose to have that MinQty enforced with respect to certain Segment Classifications and ignored with respect to others. To limit the application of MinQty to certain Segment Classifications, a Subscriber submits a MinQty and a selection of Segment Classifications with which the Subscriber is willing to match at an order quantity less than their MinQty. For example, a 1,000-share order with a MinQty of 500 would typically only match against eligible contra-side orders of at least 500 shares. However, if the Subscriber submits a 1,000 share order with a MinQty of 500 and a list of Segment Classifications 2, 4, and 6, the Subscriber's order will be able to match against orders of any quantity from Subscribers in Segment Classifications 2, 4, and 6, but only orders of 500 shares or greater from Subscribers in Segment Classifications 1, 3, and 5. Indirect Subscribers may use a BofAS algorithm or the BofAS SOR to limit the application of MinQty to certain Segment Classifications.

Subscribers can also elect to apply a Post Only attribute to their orders or conditional placements. This attribute allows the order or conditional placement to execute only when it is the first-in-time (liquidity-providing) order or conditional placement in a match, and prevents executions when the incoming Post Only order or conditional placement otherwise would remove resting liquidity on the book or match with a resting conditional placement. In some instances, this may mean that an order or conditional placement to buy with a Post Only attribute may rest on the order book at the same or higher price than the best offer on Instinct X and an order or conditional placement to sell with a Post Only attribute may rest on the order book at the same or lower price than the best bid on Instinct X. Because of the Post Only attribute, such orders would not match with each other, and they would not match with preexisting orders in the ATS; they would rest on the book until a later-in-time order eligible for a match (without a Post Only attribute) arrived in the ATS. The functionality of orders and conditional placements with the Post Only attribute on Instinct X may vary relative to how a "post only" order might be handled on certain exchanges. For example, Instinct X will not price slide or cancel back an order or conditional placement with the Post Only attribute that would lock or cross the ATS order book.

Subscribers may also elect to apply Volatile Quote Protection to their orders. Volatile Quote Protection does not apply to conditional placements or Firm-Up Accepts. If enabled, this attribute prevents orders from matching when the BBO provided by the SIP feeds for the relevant security varies at all from the Constructed BBO described in Part III, Item 23. Volatile Quote Protection can be applied at the system level for a given Subscriber by contacting BofAS support personnel. Changes related to Volatile Quote Protection go into effect outside of trading hours and apply to all of a Subscribers' orders. If an incoming order is a potential match for a resting order but the SIP and Constructed BBO differ and

either order has Volatile Quote Protection enabled, no match will occur. Both orders will remain on the Instinct X order book.

Subscribers can elect to submit their firm orders with a conditional placement-eligible attribute. As described further in Part III, Item 9, by default, firm Day orders will be eligible to interact with conditional placements and firm IOC orders will not be eligible to interact with conditional placements. Direct Subscribers can change these default attributes on an order-by-order basis via FIX tags. Indirect Subscribers can change these defaults by contacting the BofAS sales team.

**POSSIBLE OUTCOMES OF ORDER TYPES ROUTED TO INSTINCT X** Orders routed to Instinct X can result in one or more of the following: acceptance, rejection, cancelation, execution, or, in the event not fully executed, expiration. Instinct X orders can be modified, canceled and replaced at any time prior to execution at the discretion of the Subscriber. Instinct X updates order queue position when a Subscriber amends an order (see discussion of priority below). Instinct X will reject any orders that do not satisfy the minimum pricing increments specified in Rule 612 of Regulation NMS (i.e., the Sub-Penny Rule). Instinct X does not route orders to other Trading Centers.

**PRIORITY** Firm orders are prioritized over conditional placements, i.e., assuming order or conditional placement characteristics (e.g., symbol, side, MinQty) enable a match, an incoming order or conditional placement will match with a firm order before it matches with a conditional placement. Instinct X queues firm orders for priority purposes separately from conditional placements (even though firm orders can interact with conditional placements under certain circumstances, as described in Part III, Item 9).

Instinct X prioritizes firm orders on a Price/Client Segment/Time basis; the exercise of discretion on a Discretionary Order Type, as described below, may affect priority as well.

See Part III, Item 9, for a discussion of conditional placement prioritization. When multiple same side firm orders have an identical price, Instinct X determines execution priority based on the order's Client Segment (See Part III, Item 13 for definitions of Client Segments), followed by the time of order receipt in Instinct X. With respect to prioritization by Client Segment, as described in more detail in Part III, 11(c), orders in a lower-numbered Client Segment will have priority over orders in a higher-numbered Client Segment. Part III, Item 11(c) and Part III, Item 14 discuss order characteristics that could prevent matching regardless of priority, including, but not limited to, a Subscriber's election not to interact with a particular Client Segment. Instinct X determines queue position by new order receipt time and updates queue position when there is an amendment to the specified price, an increase in quantity, a change/addition to the pegging instruction, a change to the time in force designation, or an update to MinQty. Instinct X will maintain an order's queue position when a Subscriber amends the order to reduce its quantity. The presence or absence of a conditional-eligible attribute cannot be amended; the order must be cancelled and a new order sent. Pegged orders can be combined with a limit price. All orders will be assigned the more conservative price for execution purposes. For example, a resting midpoint pegged order with a limit price at the far side of the BBO

(best offer for buy orders, best bid for sell orders) will execute at a price no worse than the midpoint. If the BBO changes where the limit price is the near side (best bid for buy orders, best offer for sell orders), the execution will occur at an assigned limit price that is no worse than the near side price of the BBO.

**DISCRETIONARY ORDER TYPES** Instinct X offers Discretionary Passive Orders (DPOs), Discretionary Far-Touch Orders (DFOs), and Discretionary Midpoint Orders (DMOs). These order types work with certain of the above-described order attributes to create more flexible order execution options for Subscribers. These order types can only be used with firm orders; if a DPO, DFO, or DMO is sent tagged as a conditional placement, it will be rejected. Discretionary Order Types can interact with conditional placements.

DPOs allow Subscribers to execute orders at a smaller quantity than their MinQty in the event that their orders can be executed at the NBB for a buy order or NBO for a sell order. Subscribers can designate as DPOs buy orders priced at or lower than the NBO or sell orders priced at or higher than the NBB, including limit orders as well as pegged orders. DPOs must also have a MinQty applied. However, if a DPO can be executed at the near touch (NBB for buy orders, NBO for sell orders), it may be executed at such price even at a quantity that is less than the MinQty. For all potential executions at prices higher than the NBB for buy orders and lower than the NBO for sell orders, the order's MinQty will be enforced. If discretion can be exercised for a DPO order (i.e., it can be executed at the near touch at a quantity less than its MinQty), it will nevertheless yield priority to non-discretionary firm orders and conditional placements queued at the near touch. For example, if there are both a DPO buy order and a non-discretionary post-only buy order that could potentially execute against an incoming order at the NBB for a quantity below the DPO order's MinQty, the non-discretionary order would be executed first, even if the DPO buy order was in a lower-numbered client segment and received earlier in time. As with other orders with a MinQty, the default MinQty behavior with respect to a partially executed DPO is for Instinct X to designate a new MinQty equal to the leaves quantity when the leaves quantity falls below the original MinQty. Alternatively, Subscribers can request an unsolicited cancel of the leaves quantity should the quantity fall below the original MinQty.

DFOs and DMOs allow Subscribers to execute orders at a more aggressive price (higher price for buy orders, lower price for sell orders) than they would otherwise be eligible for execution at if they can be executed for a specific size. DFO and DMO designations can only be applied to limit orders; any pegged order designated DFO or DMO will be rejected. A DFO must be a passive limit order, which can be posted between the midpoint and the near touch (NBB for a buy order, NBO for a sell order). Subscribers must include a Discretionary Quantity as an order parameter on DFO orders. If a Subscriber does not provide one, the default Discretionary Quantity is the quantity of the order. If the full Discretionary Quantity can be achieved, the DFO can be executed at prices up to (or down to) and including the far touch (NBO for a buy order, NBB for a sell order), if the far touch price is within the customer's limit price. In the event of a partial fill, the Discretionary

**Quantity of a DFO will by default remain the same, but Subscribers can instruct Instinct X that in the event of a partial fill, the Discretionary Quantity should be updated to the leaves quantity. For example, if a Subscriber's 1,500-share DFO has a Discretionary Quantity of 1,000 shares, and the order receives a partial execution of 1,000 shares, by default, the Discretionary Quantity will remain 1,000 shares (which means, in practice, that no further discretion can be exercised on the order). If the Subscriber instructed Instinct X that the Discretionary Quantity should be updated to the leaves quantity, the new Discretionary Quantity would be 500 shares. A DMO must be a passive limit order, which can be posted at the near touch (NBB for a buy order, NBO for a sell order). Like DFOs, Subscribers must include a Discretionary Quantity as an order parameter (the default Discretionary Quantity is the quantity of the order). If the full Discretionary Quantity can be achieved, the DMO can be executed at prices up to (or down to) and including the midpoint price, if the midpoint price is within the customer's limit price. Like DFOs, in the event of a partial fill, the Discretionary Quantity of a DMO will by default remain the same, but Subscribers can instruct Instinct X that in the event of a partial fill, the Discretionary Quantity should be updated to the leaves quantity. If discretion can be exercised for a DFO or DMO order (i.e., it can be executed at the Discretionary Quantity at the far touch or midpoint, as applicable), it will nevertheless yield priority to non-discretionary firm orders and conditional placements queued at such prices.**

**Subscribers receiving executions of their discretionary orders will receive liquidity indicators noting when discretion was applied.**

## **TRAJECTORY ORDERS**

**ACCEPTABLE ORDER TYPES, TIME-IN-FORCE INSTRUCTIONS, AND ATTRIBUTES** Instinct X offers a Trajectory Cross, which crosses two eligible orders at the VWAP price over a specific duration. Trajectory Cross is available to all Subscribers. Direct Subscribers can submit Trajectory Orders, at their discretion, through the standard FIX messaging protocol; Indirect Subscribers' Trajectory Orders are submitted through a BofAS algorithm or the BofAS SOR. Trajectory Cross accommodates (i) short duration Trajectory Orders, which have a duration of five minutes or less, and (ii) long duration Trajectory Orders, which have a duration of longer than five minutes. The shortest allowed duration is one minute and duration can be any length of time in minutes and seconds over one minute up to the length of a trading day. (Trajectory Orders with durations longer than the remaining length of a trading day will be accepted and are eligible to be paired, but will be cancelled at the end of the trading day.) The Subscriber designates the duration at the time of order entry and has the option to include a "decay" instruction, which means that any time elapsed before matching will count toward the duration of the order. For example, if a Trajectory Order without a decay instruction is sent with a duration of 120 minutes, duration will not be calculated until the order is matched, and the order can be matched for up to 120 minutes. If a Trajectory Order with

the decay instruction is sent with a duration of 120 minutes, and it is matched at time of receipt plus 10 minutes, the order can be matched for up to 110 minutes.

Short duration Trajectory Orders are executed in a single match at the end of the crossing period at the VWAP price over the particular duration. Long duration Trajectory Orders are executed in intervals throughout the particular duration, as described further in Part III, Item 11. Short duration Trajectory Orders may be firm orders or conditional placements. By default, firm Trajectory Orders will be eligible to interact with conditional placement Trajectory Orders. Direct Subscribers can change these default attributes on an order-by-order basis via FIX tags. Indirect Subscribers can change these defaults by contacting the BofAS sales team. Both short duration and long duration matches of Trajectory Orders only execute if there have been at least three executions during the order duration or interval, respectively. A Trajectory Order submitted with a duration longer than five minutes may match with a Trajectory Order submitted with a duration equal to or shorter than five minutes, in which case both orders will be handled as short duration Trajectory Orders.

Long duration Trajectory Orders may only be conditional placements. Trajectory Orders must be submitted with a TIF of DAY. (A Firm-Up Accept resulting from a conditional Trajectory Order may be submitted with a TIF of IOC; however, once matched, the Firm-Up Accept--notwithstanding its IOC designation--will be considered in force for the duration of the Trajectory Order.)

Trajectory Orders may be submitted with a MinQty instruction, as described above. Trajectory Orders may not use the Post Only or Volatile Quote Protection instructions described above. Trajectory Orders may submit a Minimum Match Duration, which is the minimum amount of time the Subscriber is willing to have as the duration for their Trajectory Order.

POSSIBLE OUTCOMES OF ORDER TYPES ROUTED TO INSTINCT X Same as above for non-Trajectory Orders.

PRIORITY Instinct X prioritizes Trajectory Orders on a Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time basis. As noted above, firm orders have priority over conditional placements. Then, with respect to prioritization by Client Segment, Trajectory Orders in a lower-numbered Client Segment will have priority over Trajectory Orders in a higher-numbered Client Segment. If both Trajectory Orders are from the same Client Segment, Instinct X will consider the ratio of size (number of shares) of the Trajectory Order to duration of the Trajectory Order--the largest ratio will take priority. If both Trajectory Orders have the same Client Segment and Ratio of Order Size to Duration, the Trajectory Order received earliest-in-time will have priority. Instinct X determines queue position for firm and conditional placement

**Trajectory Orders by new order receipt time and updates queue positions in connection with an amendment to the specified price; an increase in quantity; or an update to MinQty, duration, Minimum Match Duration, decay instruction, pro rata vs. curve vs. both instruction, or volume distribution. A Trajectory Order cannot be amended after it is matched.**

**BofAS logs all Subscriber Trajectory Cross conditional placement details within Instinct X system files to allow for review of all counterparty acceptances, including the size of counterparty acceptances, and declines. The ATS Working Group uses this information to monitor and assess whether Direct Subscribers should be permitted to continue to submit Trajectory Cross conditional placements.**

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

Yes  No

### Part III: Manner of Operations

#### 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).

**Conditional placements that are Trajectory Orders are discussed separately in Part III, Items 7 and 11.**

**CONDITIONAL PLACEMENTS GENERALLY** Instinct X accepts conditional placements -- the only trading interests supported by Instinct X. Conditional placements are an optional set of messages that have all the required attributes of a firm order (i.e., symbol, side, market/limit and quantity), but are not firm orders because they cannot execute without further message interactions. By default, conditional placements can interact with other conditional placements and with firm orders on a one-to-one basis, as described further below. Specifically, conditional placements can interact with other conditional placements, with firm DAY orders, or with IOC orders that have applied the conditional placement-eligible attribute. Firm DAY orders can opt out of interacting with conditional placements. Direct Subscribers can prevent their firm DAY orders from interacting with conditional placements via FIX tags. Indirect Subscribers can prevent their firm DAY orders from interacting with conditional placements by contacting the BofAS Sales team. Subscribers can prevent their conditional placements from interacting with firm orders. Direct Subscribers can prevent their conditional placements from interacting with firm orders via FIX tags. Indirect Subscribers can prevent their conditional placements from interacting with firm orders by contacting the BofAS Sales team, which can implement the change outside of normal trading hours. Conditional placements can include all of the order types and attributes identified in Part III, Item 7. Conditional placements are subject to the same order size requirements identified in Part III, Item 8.

**WHO CAN SEND CONDITIONAL PLACEMENTS AND HOW** Any Direct Subscriber can submit conditional placements, at its discretion, through the standard FIX messaging protocol. Any Indirect Subscriber can submit conditional placements through

**customizations of a BofAS algorithm or the BofAS SOR, based on the Indirect Subscriber's order attributes and handling instructions (i.e., if an Indirect Subscriber elects to use a dark routing strategy, the algorithm or SOR will use the passive dark routing strategy to determine to send conditional placements to Instinct X via the SOR). Note, BofAS logs all Subscriber conditional placement details within Instinct X system files to allow for review of all counterparty acceptances, including the size of counterparty acceptances, and declines. The ATS Working Group uses this information to monitor and assess whether Direct Subscribers should be permitted to continue to submit conditional placements.**

**POTENTIAL MATCHES OF CONDITIONAL PLACEMENTS** Conditional placements can generate a potential match with other conditional placements and/or firm orders based on marketability (i.e., price), quantity, symbol, and other optional attributes like segment classification exclusions, MinQty, or Post Only. The ATS will attempt to match an incoming order or conditional placement first against a firm order resting on the ATS's book (firm orders are prioritized for matching with incoming orders or conditional placements as described above in Part III, Item 7). If there are no resting firm orders against which the incoming order or conditional placement can match, then the ATS will attempt to match an incoming order or conditional placement against any resting conditional placements. Conditional placements resting on the ATS's order book are prioritized for matching with incoming orders or conditional placements on a Price/Quantity/Time basis. When multiple same side conditional placements have an identical price, Instinct X determines execution priority based on the order's quantity, followed by the time of order receipt in Instinct X. Instinct X updates queue position for conditional placements when there is an amendment to the specified price, an increase in quantity, a change/addition to the pegging instruction, a change to the time in force designation, or an update to MinQty. If a potential match between two conditional placements exists, Instinct X will send a Firm-Up Invite to each of the single counterparties that meet one another's parameters (i.e., Instinct X will generate only one Firm-Up Invite for each of the matched conditional placements). If a potential match between a conditional placement and a firm order exists, Instinct X will send a Firm-Up Invite to the conditional placement. Instinct X will send a Firm-Up Invite to a Direct Subscriber through the FIX connection or to the BofAS algorithm or BofAS SOR that sent the conditional placement (on behalf of an Indirect Subscriber). When a BofAS algorithm generated a conditional placement, the Firm-Up Invite is sent through the SOR to the algorithm, which makes the decision whether to send a Firm-Up Accept. When Instinct X generates the Firm-Up Invite, Instinct X will immediately cancel the underlying conditional placement and will not generate any other Firm-Up Invites in connection with the cancelled conditional placement until the Firm-Up Invite expires or is actioned. Instinct X will continue to match other orders and conditional placements for Subscribers in all symbols while a Firm-Up Invite is pending. The Firm-Up Invite expires after a preset period. The same preset period applies to all Subscribers. The preset period is 100 milliseconds. To the extent a conditional placement has matched with a firm order, the firm order--including any IOC order that has applied the conditional placement-eligible attribute--is not reserved exclusively for the conditional placement's Firm-Up Accept. The Firm order may match with any other firm orders in the ATS up until the shorter of the time it takes for the conditional placement to respond to the Firm-Up Invite or the expiration of the preset period, after which time the

**process described below under HOW FIRM-UP INVITES RESULT IN AN EXECUTION occurs. The duration of Firm-Up Invites is configurable only by BofAS and can be adjusted based on the ATS Working Group's periodic review of overall performance of conditional placements in Instinct X and the amount of time it takes counterparties to Firm-Up. If a Firm-Up Invite expires, Instinct X will cancel any orders in that symbol from the Subscriber that permitted the Firm-Up Invite to expire.**

**RESPONSES TO FIRM-UP INVITATIONS BY COUNTERPARTIES THAT SUBMITTED CONDITIONAL PLACEMENTS** Firm-Up Invites sent to potential conditional placement counterparties include each party's respective original order attributes, a unique identifier and a quantity that is the lesser of the two original conditional placement quantities (Firm-Up Invite quantity). A counterparty can accept, decline or ignore a Firm-Up Invite. A counterparty can accept a Firm-Up Invite by responding with any quantity that satisfies its own MinQty exceeds than the lesser of its MinQty or the quantity indicated in the Firm-Up Invite. The Firm-Up Accept quantity can be less than, equal to or greater than the Firm-Up Invite quantity, or a quantity that is greater than the original conditional placement. Instinct X will cancel any remaining quantity. Alternatively, a counterparty can ignore the Firm-Up Invite by not responding with a Firm-Up Accept for the duration of the Firm-Up Invite; ignoring the Firm-Up Invite results in a default decline at the expiration of the preset period. Counterparties also can decline a Firm-Up Invite before the expiration of the preset period by sending a Firm-Up Accept with a zero quantity. If a party ignores or declines (i.e., sends a zero-quantity Firm-Up Accept) a Firm-Up Invite, the initiating conditional placement is cancelled. Affirmatively declining a Firm-Up Invite before the expiration of the preset period frees the potential counterparty's Firm-Up Accept or firm order to interact with other firm orders. No Firm-Up Invite or other information about a conditional placement is sent to a counterparty whose firm order potentially matches with a conditional placement. Accordingly, no Firm-Up Accept is required from such party, and such party may not change the quantity of their firm order during the preset period.

**HOW FIRM-UP INVITES RESULT IN AN EXECUTION** If the counterparty(ies) that sent a conditional placement accept a Firm-Up Invite, Instinct X will execute a trade at the lesser of the two quantities reflected in the Firm-Up Accept(s) or the original firm order, as applicable, provided that it satisfies the MinQty of each counterparty. Instinct X will cancel back any remaining quantity on the Firm-Up Accept or a firm IOC order. Any remaining quantity of a firm DAY order will be added to the order book.

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.

Although conditional placements that are Trajectory Orders are not discussed in Item 9(a) and instead are discussed separately in Part III, Items 7 and 11, this response to Item 9(b)

**relates to regular conditional placements and conditional placements that are Trajectory Orders.**

Indirect Subscribers are not subject to the ATS Working Group review of conditional placement activity for the purposes of monitoring and assessing whether continued submission of conditional placements should be permitted. As described in Part III, Item 9(a), the process for submitting instructions related to conditional placements (e.g., whether orders are eligible to interact with conditional placements) is different for Indirect Subscribers relative to Direct Subscribers, and, for Indirect Subscribers, the BofAS algorithm or BofAS SOR that sent the conditional placement participates in the Firm-Up process, rather than the Indirect Subscriber. The exercise of discretion by BofAS, including the ATS Working Group, in monitoring and assessing whether Direct Subscribers should be permitted to continue to submit conditional placements may result in different outcomes for similarly situated Direct Subscribers in terms of the ability to send conditional placements.

### Part III: Manner of Operations

#### 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.

**Trading in Instinct X begins after the opening or re-opening print on the primary listing exchange for a security. Orders and conditional placements are priced, prioritized, matched, and executed consistent with the crossing priority described in Part III, Items 9 and 11, and in Part III, Item 17 for IXCC Orders. Instinct X does not employ any special opening or re-opening processes, auctions or order types. Conditional placement message functionality begins after the opening or re-opening print on the primary listing exchange for a security.**

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

Yes  No

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.

**Unexecuted orders and conditional placements are handled at the start of regular trading as described in Part III, Item 10(a) above. In the event of a regulatory halt, unexecuted orders and conditional placements will reside in Instinct X until the halt is lifted and the primary listing exchange resumes trading in the stock; however, conditional placement Firm-Up messages can lapse during a stoppage of trading as a function of the expiration of the Firm-Up timer and no new messages will be sent. Instinct X will not execute a firmed-up order during a regulatory halt even if Instinct X already generated a Firm-Up Invite before the halt. With respect to Trajectory Orders, in the event of a regulatory halt, any unexecuted quantity is cancelled back and the match is cancelled.**

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

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

### Part III: Manner of Operations

#### 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.

Generally, Instinct X is an NMS Stock ATS that operates within BofAS as part of the GBAM Division of BAC and offers matching services in all NMS Stocks. Specifically, Instinct X is a crossing system that (for other than IXCC and Trajectory Cross) matches non-displayed orders based on a Price/Client Segment/Time priority and Subscriber selected order attributes. Instinct X also supports conditional placement trading interest as described in Part III, Item 9, which allows a Subscriber to place non-firm trading interest into Instinct X for matching through a Firm-Up process. Instinct X will establish a non-displayed "book" (subject to further discussion in Part III, Item 15) for orders and conditional placements, respectively, for each security made available for matching (the book is the conceptual file that maintains all individual orders or conditional placements deemed eligible for crossing in a particular security). Instinct X also accepts IXCC Orders designated for the IXCC. IXCC Orders and their handling are discussed below in Part III, Item 17. Instinct X also offers a Trajectory Cross, which matches non-displayed orders and conditional placements based on Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time priority and Subscriber selected order attributes. Trajectory Orders can only match with other Trajectory Orders.

- 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

- 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.

Instinct X evaluates each Subscriber incoming order and conditional placement to determine whether: (i) the Instinct X system is available for trading and (ii) the symbol is available for trading. If so, Instinct X assesses the market conditions applicable to each order or conditional placement including: (i) the availability of market data (updated in real-time), (ii) the symbol's trading status (updated in real-time), (iii) whether the time is within Instinct X's trading hours (see Part III, Item 4), and (iv) whether the bid/ask spread is smaller than the maximum value set by BofAS for the particular security and the

**particular time interval. If the market conditions are acceptable, Instinct X then evaluates each order's or conditional placement's Subscriber required attributes.**

**IXCC Orders and their handling are discussed below in Part III, Item 17.**

**This section first discusses non-Trajectory Orders, then separately discusses Trajectory Orders, then discusses aspects of the ATS operations applicable to both.**

## **NON-TRAJECTORY ORDERS**

**PRIORITY** Instinct X will match orders based on Price/Client Segment/Time priority, in order of precedence. First, Instinct X will consider price and will prioritize the more conservative of the Limit and Relative Price defined in any peg instruction. Next, Instinct X will consider the Client Segment for equally priced orders. Specifically, orders in a lower-numbered Client Segment will have priority over orders in a higher-numbered Client Segment (as defined in Part III, Item 13). After assessing the price and Client Segment of an order, Instinct X will consider the time it received the order and will prioritize orders received earlier in time. Instinct X will match conditional placements based on Price/Quantity/Time priority, in order of precedence. When multiple same side conditional placements have an identical price, Instinct X determines execution priority based on the order's quantity, followed by the time of order receipt in Instinct X. A Subscriber's use of the MinQty, Post Only, or Volatile Quote Protection attributes, or the Discretionary Order Types, as defined in Part III, Item 7, may also affect an order's or conditional placement's priority. For example, an incoming order that would match with a resting order based on Price/Client Segment/Time but that does not meet the resting order's MinQty would not result in a match. Similarly, an incoming order that would match with a resting order based on Price/Client Segment/Time but that is marked Post Only would not result in a match. A Subscriber's election not to interact with a particular Client Segment (see Part III, Item 14) could also prevent an order or a conditional placement that otherwise satisfies matching criteria, including priority criteria, from matching. To the extent an incoming order or conditional placement is prevented from matching with a resting order or conditional placement by one of these order attributes, Instinct X would look for other potential matches with resting orders or conditional placements, using the priority rules described above. If no match is identified, the incoming order or conditional placement will be added to the Instinct X order book.

**PRICE IMPROVEMENT** Instinct X offers Subscribers the ability to choose price protection mechanisms in the form of the following pegged orders: (i) MIDPOINT PEG -- an order that is pegged to the midpoint of the BBO; (ii) PRIMARY PEG -- an order that is pegged to the BBO on the same side of the market (i.e., near touch); and (iii) MARKET PEG -- an order that is pegged to the BBO on the opposite side of the market (i.e., far touch). Instinct X will split price improvement equally between counterparties within the

**bounds of the BBO for two limit orders with overlapping limit prices. If the calculated midpoint between the two orders falls outside the BBO, the execution price will be the outer bound of the BBO. Instinct X will treat a resting midpoint pegged order as a limit order and will split price improvement equally between counterparties when executing against an opposite limit priced order. Similarly, Instinct X will treat a far side pegged order as a limit order and will split price improvement equally between counterparties when executing against an opposite limit priced order as well as a resting midpoint pegged order. For example, Instinct X will split price improvement and execute halfway between the midpoint of the BBO and the far side bid or offer when a resting midpoint pegged order crosses with a far side pegged order. Instinct X will not provide price improvement to a market order when matching against a limit order and will instead execute such orders at the assigned limit price. For example, Instinct X will execute a resting midpoint pegged order and a market order at the midpoint of the BBO assuming the realized pegged price is more conservative than any specified absolute limit on the midpoint pegged order. Additionally, because Instinct X treats an order pegged to the far side as a limit order, Instinct X will execute at the far side and will not provide price improvement when matching a market order and a resting order pegged to the far side.**

## **TRAJECTORY ORDERS**

**PRIORITY** Instinct X will match Trajectory Orders on a Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time basis. First, firm orders will have priority over conditional placements. Then, with respect to prioritization by Client Segment, Trajectory Orders in a lower-numbered Client Segment will have priority over Trajectory Orders in a higher-numbered Client Segment. If both Trajectory Orders are from the same Client Segment, Instinct X will consider the ratio of size (number of shares) of the Trajectory Order to duration of the Trajectory Order—the largest ratio will take priority. If both Trajectory Orders have the same Client Segment and Ratio of Order Size to Duration, the Trajectory Order received earliest-in-time will have priority. A Subscriber's use of the MinQty or Minimum Match Duration attributes, as defined in Part III, Item 7, may also affect a Trajectory Order's priority. For example, an incoming order that would match with a resting order other than with respect to the resting order's MinQty would not result in a match. Similarly, an incoming Trajectory Order that would otherwise match against a resting Trajectory Order based on Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time but that has a Minimum Match Duration that is longer than the resting Trajectory Order's duration would not result in a match. A Subscriber's election not to interact with a particular Client Segment (see Part III, Item 14) could also prevent a Trajectory Order that otherwise satisfies matching criteria, including priority criteria, from matching. To the extent an incoming Trajectory Order is prevented from matching with a resting Trajectory Order by one of these order attributes, Instinct X would look for other potential matches with resting Trajectory Orders, using the priority rules described above. If no match is identified, the incoming Trajectory Order will be added to the order book.

**MATCHING** If two firm Trajectory Orders match based on the above prioritization, they will be matched for the order quantity executable over the shortest duration. For example, if a buy order for 500 shares with a five minute duration matches with a sell order for 1000 shares with a two minute duration, the match quantity will be  $(2/5) * 500$  shares, or 200 shares, and the duration of the match will be two minutes.

If a firm Trajectory Order to buy (or sell) is matched with a conditional Trajectory Order to sell (or buy), Instinct X will send a Firm-Up Invite to the conditional Trajectory Order. If the conditional Trajectory Order sends a Firm-Up Accept, then the firm Trajectory Order and the conditional Trajectory Order are considered matched and will not match against any new incoming firm or conditional Trajectory Orders. If a firm Trajectory Order is matched with a conditional Trajectory Order, and the conditional Trajectory Order does not firm-up, the firm Trajectory Order will remain on the book eligible for crossing. If a firm Trajectory Order to buy (or sell) is matched with a conditional Trajectory Order to sell (or buy) and while waiting for the conditional Trajectory order to firm up, another firm Trajectory Order to sell (or buy) comes in, the firm Trajectory Order to buy (or sell) will be matched with the firm Trajectory Order to sell (or buy), and the firm-up Trajectory Order to sell (or buy) received after that will be cancelled back. If a firm Trajectory Order to buy (or sell) is matched with a conditional order to sell (or buy), and while waiting for the conditional Trajectory Order to firm up, another conditional Trajectory Order to sell (or buy) comes in, the firm Trajectory Order to buy (or sell) will not match against the new conditional order.

If two conditional Trajectory Orders match based on the above prioritization, both sides will be sent a Firm-Up Invite. The Firm-Up Invite will show the duration period for the match, which is the shorter of the two orders' duration periods. The Firm-Up Invite will also show the original order quantity for the respective order (neither side will receive the other's order quantity, or the matched order quantity). If both sides send a Firm-Up Accept within the Firm-Up preset period, the orders will be matched for the lesser order's quantity and the order duration contained in the Firm-Up Invite. If either side does not send a Firm-Up Accept in response, both orders will be cancelled.

Like conditional placements, as described in Part III, Item 9, the Trajectory Order Firm-Up Invite preset period is 100 milliseconds. The duration of Firm-Up Invites is configurable only by BofAS and can be adjusted based on the ATS Working Group's periodic review of overall performance of conditional placements in Instinct X and the amount of time it takes counterparties to Firm-Up.

**INTERVAL CALCULATIONS** Long duration Trajectory Orders receive multiple executions at intervals throughout the duration of the order. The minimum interval will be four minutes and the maximum interval will be six minutes across all symbols. Each interval will be a random length between the minimum and maximum, as determined by

**BofAS. The number of intervals will be based on how many random intervals can fit into the duration of the order. At the end of each interval, Instinct X will confirm there were at least 3 trades in the market during the course of the interval. If there have been at least 3 trades, an execution for that interval will be printed at the VWAP price for that interval. If there have been fewer than 3 trades, there will be no execution for that interval, which will roll into the next interval.**

**If a short duration order is disrupted mid-duration or a long duration order is disrupted mid-interval, the order will either receive a partial fill and be cancelled or be cancelled with no fill, depending on the reason for the disruption. If the order is disrupted due to a market-wide halt, a stock-level halt, an ATS-level halt, a manual system intervention, or because the trading day ended, the order will be cancelled with no fill. In all other instances (e.g., an order becomes non-marketable or one Subscriber cancels their order), Instinct X will determine the VWAP for the short duration order or the interval, as applicable, up to the time of the disruption. Matched orders will receive an execution at that price for a pro rata quantity of shares, and the remaining portions of the orders will be cancelled.**

**PRO RATA AND CURVE INSTRUCTIONS** Subscribers who send long duration Trajectory Orders elect whether the execution quantity for each interval will be determined on a pro rata basis or a curve basis, or both. Trajectory Orders with a pro rata only instruction will only match with other pro rata orders. Trajectory Orders with a curve only instruction will only match with other curve orders. Trajectory Orders with a "both" instruction can match with either pro rata or curve orders. Where two orders are marked "both," (i) if neither order contains a curve volume distribution (as described further later in this paragraph), then the orders will be handled on a pro rata basis; (ii) if one order contains a curve volume distribution, then the orders will be handled on a curve basis and the sole volume distribution provided will be used; (iii) if both orders contain volume distributions for a curve, then the orders will be handled on a curve basis, and the orders will be executed using the curve submitted by the client with the lowest Client Segment (if both parties are in the same Client Segment, Instinct X will average both parties' curves). If the order is executed on a pro rata basis, the quantity of each execution in a given interval will be based on the proportional time remaining in the duration of the order. For example, by the time an order is halfway through the duration, the executed order quantity will be approximately one-half of the total match quantity. If the Subscriber elects a curve basis, the Subscriber must also submit a volume distribution that shows what percentage quantity of the total order quantity the Subscriber would like to see executed in each decile of the duration. For example, if the Subscriber submits a volume distribution of 5,5,5,5,10,20,20,20,5,5, the Subscriber is saying that in the first 10th of the order's duration, 5% of the total order quantity should be executed; by halfway through the order, 30% of the total order quantity should be executed. To the extent that some or all of the specified order quantity cannot be executed in a given decile, Instinct X will seek to execute such unexecuted quantity in the next decile (along with that decile's specified quantity). In the event that two Trajectory Orders with a curve instruction match, the orders will be executed using the volume distribution submitted by the client with the lowest Client

**Segment. If both parties are in the same Client Segment, Instinct X will average both parties' volume distributions. (As noted above, if two Trajectory orders with a "both" instruction match, and only one provides a volume distribution, that volume distribution will be used; if both provide volume distributions, the orders will be executed using the curve submitted by the client with the lowest Client Segment and, if both parties are in the same Client Segment, Instinct X will average both parties' curves.)**

**DECAY INSTRUCTION** As described above, Subscribers can include an optional instruction to allow an unmatched Trajectory Order to "decay," meaning that the time elapsed before pairing will count toward the duration of the order. For example, if a Trajectory Order with the decay instruction enabled is sent with a duration of 120 minutes, and it is matched at time of receipt plus 10 minutes, the maximum duration for the match is 110 minutes.

## **BOTH NON-TRAJECTORY ORDERS AND TRAJECTORY ORDERS**

**COMPLIANCE WITH VARIOUS FEDERAL SECURITIES REQUIREMENTS** Instinct X does not accept short sale or "short exempt" orders for the IXCC. Otherwise, Instinct X is designed to operate in compliance with the requirements of Reg SHO when accepting and/or executing orders and conditional placements. InWith the exception of Trajectory Orders, in accordance with Rule 201 of Reg SHO, once a circuit breaker has been triggered, the short sale price test restriction will apply to short sale orders and conditional placements in that security for the remainder of the day and the following day, unless an exemption applies. With respect to Trajectory Orders, Instinct X will reject any short sell Trajectory Orders received after a circuit breaker has been triggered. If a circuit breaker is triggered while matched Trajectory Orders are pending (i.e., a short duration order has not been executed yet or a long duration order is mid-interval), Instinct X will determine the VWAP for the short duration order or the interval, as applicable, up to the time the circuit breaker has been triggered. If the VWAP price is greater than the NBB, the orders will receive an execution at that price and the remaining portions of the orders will be cancelled. If the VWAP price is less than or equal to the NBB, the orders will receive an execution at the NBB plus one minimum pricing variation and the remaining portions of the orders will be cancelled. The quantity of the execution will be determined by reference to the proportion of the duration of the match period/interval that elapsed before the Rule 201 circuit breaker was triggered. Instinct X accepts orders and conditional placements marked as "short exempt" from broker-dealer Subscribers.

Instinct X will accept but not cross orders or conditional placements, including those marked Post Only, in a locked or crossed market environment (except for IXCC and Trajectory Orders). Because IXCC and Trajectory Orders are not priced by reference to the continuous limit order book, they can be matched and executed without regard to a locked or crossed market state. Similarly, Instinct X will only cross orders and conditional placements if Limit Up/Limit Down ("LULD") bands are being disseminated and the

proposed crossing price is within the LULD bands (except for IXCC Orders). With respect to IXCC Orders, if a LULD halt is in effect during any portion of the time period between the IXCC Offset Time and the time the official closing price is disseminated by the primary listing market for the relevant NMS Stock, the IXCC Orders will be cancelled back unexecuted. If a LULD halt is in effect at the time an IXCC Order is received but lifted before the IXCC Offset Time, the IXCC Order will be eligible for matching and execution in the IXCC. With respect to Trajectory Orders, if a LULD comes into effect during the Order's duration, any unexecuted portion of the Trajectory Order will be cancelled back unexecuted. Instinct X will not execute orders or firmed-up conditional placements in a security subject to a LULD trading pause or regulatory halt. Pursuant to applicable rules, Instinct X will only resume crossing once trading has commenced on the primary listing exchange and LULD price bands are available.

BofAS handles execution errors occurring within Instinct X in accordance with the Firm's Errors and Error Correction Transactions Policy ("Error Policy"). The Error Policy applies to bona fide errors (e.g., wrong security or side of the market, execution outside the limit price of an order, executions at clearly erroneous prices). BofAS handles executions at clearly erroneous prices consistent with the applicable rules of the self-regulatory organizations. The Error Policy requires that bona fide errors involving Instinct X be recorded in BofAS error accounts and reported to the ATS Supervisor. Bona fide errors can be raised by Clients to BofAS sales traders or identified by BofAS. After evaluating the activity to confirm it is a bona fide error, the ATS Supervisor or the ET Supervisor can correct the error in a manner that attempts to place the Subscriber in the same position had the error not occurred. The ATS supervisor or delegate reviews execution errors daily or as they occur to ensure that they are handled in accordance with BofAS procedures. Instinct X time stamps orders upon receipt in the ATS and executions at the time they occur in accordance with applicable CAT and trade reporting rules. Instinct X determines queue position by new order receipt time and updates queue positions in connection with an amendment to the specified price, an increase in quantity, a change/addition to the pegging instruction (a pegged order will maintain its queue position based on changes to the BBO unless there is action taken with respect to pegging instructions), a change to the time in force designation, or an update to MinQty. Instinct X will maintain an order's and conditional placement's queue position when the Subscriber amends the order or conditional placement to reduce the quantity.

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

### Part III: Manner of Operations

#### Item 13: Segmentation; Notice

a. Are orders and trading interest in the NMS Stock ATS segmented into categories, classifications, tiers, or levels (e.g., segmented by type of participant, order size, duration, source, or nature of trading activity)?

Yes  No

If yes, explain the segmentation procedures, including (i) a description for how orders and trading interest are segmented; (ii) identify and describe any categories, classification, tiers, or levels and the types of orders and trading interest that are included in each; (iii) provide a summary of the parameters for each segmented category and length of time each segmented category is in effect; (iv) any procedures for overriding a determination of segmented category; and (v) how segmentation can affect order interaction.

**BofAS assigns all Subscribers a segment classification.**

**SEGMENT CLASSIFICATIONS** All Subscriber orders and conditional placements entered into Instinct X are associated with one of the following segment classifications: (1) **BofAS RETAIL** -- This segment consists only of MLPFS order flow; (2) **INSTITUTIONAL** -- This segment consists of orders from or on behalf of BofAS business units, BANA, MLI, BofAS Institutional Customer Subscribers, and, at least initially, Direct Subscribers that use an approved third-party algorithm or SOR to access Instinct X via cross-connection; (3)-(5) **DIRECT SUBSCRIBERS** -- These segments consist of orders from Direct Subscribers (other than Direct Subscribers using an approved third-party algorithm or SOR that are included in segment classification (2)), whose orders will be assigned to one of three segment classifications as described below in **INITIAL DETERMINATION OF SEGMENT CLASSIFICATIONS AND CHANGES TO SEGMENT CLASSIFICATIONS**; and (6) **BD RETAIL** - This segment consists of retail and private client orders sent from broker-dealer Subscribers. Segment classifications are assigned at the Client ID level; a single legal entity might be associated with multiple Client IDs (e.g., a broker-dealer with multiple trading desks might route one desk's orders through one Client ID and another desk's orders through another Client ID) and, therefore, may have more than one segment classification. Direct Subscribers who use Trajectory Cross will be required to use a Client ID specific to their Trajectory Cross orders and conditional placements. Indirect Subscribers are not required to use a separate Client ID for their Trajectory Cross orders and conditional placements.

**INITIAL DETERMINATION OF SEGMENT CLASSIFICATIONS** BofAS assigns Indirect Subscribers a segment classification based on the Indirect Subscriber's Client profile. BofAS assigns Direct Subscribers, including Direct Subscribers that use an

approved third-party algorithm or SOR to access Instinct X, an initial segment classification based upon an initial review of a Due Diligence Questionnaire (as described in Part III, Item 2) and other considerations (e.g., previous experiences with other Subscribers under the same account and historical behavior of the Subscriber) by the ATS Working Group. Segment classification (3) will contain the Direct Subscribers (other than those assigned to classification (2)) expected to offer the most favorable executions; segment classification (4) will contain the Direct Subscribers (other than those assigned to classification (2)) expected to offer medium-quality executions; and segment classification (5) will contain the Direct Subscribers (other than those assigned to classification (2)) expected to offer the least favorable executions.

**CHANGES TO SEGMENT CLASSIFICATIONS** BofAS can override the determination of a segment classification for a Direct Subscriber in accordance with the Firm's Direct Subscriber Segment Reclassification Procedure. After the initial segment classification, the ATS Working Group reviews and analyzes the activity of Direct Subscribers on Instinct X no less than quarterly. Such review involves consideration of the output of the quantitative scoring system described below, as well as qualitative factors of Direct Subscribers' activity on Instinct X. The quantitative scoring system will evaluate how favorable Direct Subscribers' order and execution characteristics are for counterparties based on factors such as message/order rates, add/take ratios, average order quantity, where-within-the-spread statistics, percentage of Day vs. IOC orders, duration of orders, reversion statistics, and order-to-trade ratios. The quantitative scoring system does not consider IXCC Orders or executions or conditional placements or Firm-Up Accepts. The quantitative scoring system will be used for firm and conditional placement Trajectory Orders, but they will be considered separately from other orders and conditional placements. The ATS Working Group review is based on holistic trading behavior, and the factors used when reviewing quantitative metrics to determine whether a Subscriber's order and execution characteristics are favorable for counterparties may vary. For instance, large order size is generally considered to be favorable, but if a Subscriber is displaying high reversion statistics (i.e., the market frequently moves in the Subscriber's favor after a trade), a higher order size is no longer favorable for counterparties. The quantitative scoring system informs in part the assignment of Direct Subscribers to one of three segment classifications. Direct Subscribers using an approved third-party algorithm or SOR will initially be assigned to segment classification (2). Segment classification (3) will contain the Direct Subscribers (other than those assigned to classification (2)) offering the most favorable executions; segment classification (4) will contain the Direct Subscribers (other than those assigned to classification (2)) offering medium-quality executions; and segment classification (5) will contain the Direct Subscribers (other than those assigned to classification (2)) with the least favorable executions. Qualitative factors include Client type (e.g., broker-dealer), trading strategies (e.g., market making), and a comparison of liquidity providing vs. liquidity taking activity. IXCC Orders and associated executions and conditional placements and Firm-Up Accepts are not considered in the review of qualitative factors. The qualitative scoring system will be used for firm and conditional placement Trajectory Orders, but they will be considered separately from other orders and conditional placements. Based on the review of these quantitative and qualitative factors, the ATS Working Group can determine to amend a Direct Subscriber's (including Direct

**Subscribers using approved third-party algorithms or SORs) segment classification in either direction. BofAS may modify a Direct Subscriber's segment classification at any time, including outside of the ATS Working Group's periodic meetings, using the quantitative and qualitative factors described above. There is no specific length of time that a segment classification will remain in effect. BofAS, subject to approval by the ATS Working Group, reserves the right to review and add, remove or revise a segment classification at any time.**

**ORDER INTERACTION BASED ON SEGMENT CLASSIFICATIONS** Because Instinct X considers a Subscriber's segment classification when assessing an order or conditional placement, a Subscriber's segment classification can impact the priority of the Subscriber's orders (other than IXCC Orders) and conditional placements, as described above in Part III, Item 11(c). Additionally, Subscribers can select the segment classifications with which they do and do not want to trade, as described in Part III, Item 14. Segment classification does not impact the priority of IXCC Orders and Subscribers cannot select segment classifications with which they do or do not want to trade in IXCC.

- b. If yes to Item 13(a), is the segmentation of orders and trading interest the same for all Subscribers and the Broker-Dealer Operator?
  - Yes  No
- c. Does the NMS Stock ATS identify orders or trading interest entered by a customer of a broker- dealer on the NMS Stock ATS as a customer order?
  - Yes  No
- d. If yes to Item 13(a), does the NMS Stock ATS disclose to any Person the designated segmented category, classification, tier, or level of orders and trading interest?
  - Yes  No

If yes, provide a summary of the content of the disclosure, when and how the disclosure is communicated, who receives it, and whether and how such designation can be contested.

**Subscribers are informed of their designated segment classification by the Sales team during onboarding or upon request by the Firm's MAG team, which is responsible for monitoring Instinct X's health and functionality along with other operational and Client issues. Any Direct Subscriber request to contest a designated segment is communicated through the Sales team or the MAG team to the ATS Working Group. The ATS Working Group will review such request consistent with the Direct Subscriber Segment Reclassification Procedure described in Part III, Item 13(a). Separately, Instinct X does not identify individual orders or conditional placements as Customer orders or Customer conditional placements. However, based on the counterparty segment classification selection procedures described in Part III, Item 14, except with respect to IXCC Orders, Subscribers can request counterparty segment classification restrictions to exclude certain**

**segment classifications and thereby trade only with segment classifications that are primarily comprised of orders and conditional placements of Customers of a broker-dealer (e.g., (1) BofAS Retail, (6) Retail).**

e. If yes to Item 13(d), are the disclosures required to be identified in 13(d) the same for all Subscribers and the Broker-Dealer Operator?

Yes  No

### Part III: Manner of Operations

#### Item 14: Counter-Party Selection

a. Can orders or trading interest be designated to interact or not interact with certain orders or trading interest in the NMS Stock ATS (e.g., designated to execute against a specific Subscriber's orders or trading interest or prevent a Subscriber's order from executing against itself)?

Yes  No

If yes, explain the counter-party selection procedures, including how counter-parties can be selected, and whether the designations affect the interaction and priority of trading interest in the ATS.

**Subscribers can request that their orders, other than IXCC Orders, and conditional placements only interact with particular counterparty segment classifications, as described in Part III, Item 13. Subscribers cannot make counterparty segment classification selections for IXCC Orders. For other orders and conditional placements, Subscribers can select the particular segment classifications with which they do and do not want to trade. Indirect Subscribers can submit segment classification restriction requests through the Sales team. Indirect Subscribers can request that a particular segment classification restriction be applied to all of their orders or that a particular segment classification be applied to only their day orders (not IOC orders). These requests can only be implemented by a BofAS employee and are implemented after normal trading hours. To the extent an Indirect Subscriber requests both overall and day-only segment classification restrictions, in the event of a conflict, the overall restriction will take priority. Direct Subscribers can request through the Sales team that a particular segment classification restriction be applied to their day orders (not IOC orders). Such requests can only be implemented by a BofAS employee and are implemented after normal trading hours. Direct Subscribers can also apply a segment classification restriction on an order-by-order basis via FIX message. To the extent a Direct Subscriber has both a day-only segment classification restriction and applies an order-specific segment classification restriction via FIX, the order-specific segment classification restriction will take precedence. Subscribers can request an analysis specific to their order flow (i.e. counterparty segment interaction) from a BofAS Sales employee.**

**In addition to segment classification restrictions, Subscribers can also or alternately preclude their orders and conditional placements (including IXCC Orders) from interacting with the principal orders or conditional placements of BofAS or principal orders or conditional placements of BofAS Affiliates via a principal order exclusion, as described in Part II, Item 3.**

**Subscribers can also preclude their orders (including IXCC Orders) and conditional placements from interacting with other orders and conditional placements based on order**

quantity by using the MinQty attribute. Subscribers can use MinQty to exclude their orders and conditional placements from interacting with other orders or conditional placements on the basis of order arrival and residual (leaves) quantity. Subscribers can also elect to apply a Post Only attribute to their orders (other than IXCC Orders) or conditional placements. This attribute would exclude orders from interacting with preexisting orders or conditional placements if the incoming order would remove resting liquidity on the book. Subscribers communicate these order attribute-based restrictions via FIX messages. A Subscriber's use of Volatile Quote Protection may also prevent otherwise compatible orders (other than IXCC Orders) from matching. Subscribers sending Trajectory Orders can also use the Minimum Match Duration attribute to exclude their Trajectory Orders from interacting with other Trajectory Orders on the basis of match duration. Subscribers electing to use a MinQty attribute also may choose to have that attribute enforced with respect to certain Segment Classifications and ignored with respect to others.

By default, Instinct X applies a self-cross prevention feature which prevents a Subscriber order (including IXCC Orders) or conditional placement from crossing against an order or conditional placement originating from the same account of a Subscriber. Note, the self-cross prevention feature will not prevent crosses between different accounts of the same Subscriber. Broker-dealer Subscribers can opt out of the self-cross prevention feature by contacting their sales and/or coverage personnel.

b. If yes to Item 14(a), are the procedures for counter-party selection required to be identified in Item 14(a) the same for all Subscribers and the Broker-Dealer Operator?

Yes  No

### Part III: Manner of Operations

#### 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.

**Instinct X does not display its book of orders and conditional placements to any Person (i.e., Instinct X does not publish or display a montage of quotes or orders). While orders and conditional placements of Indirect Subscribers routed to Instinct X pass through BofAS's electronic trading infrastructure, including the Firm's SOR, the SOR does not have information about orders or conditional placements resident in Instinct X's book other than those placed into the book by the SOR. When there is a potential match involving a conditional placement ([including a conditional Trajectory Order](#)), Instinct X sends a Firm-Up Invite message, which includes the side, symbol, and quantity of a contra-conditional placement, to the relevant BofAS algorithm or the BofAS SOR used to send the Indirect Subscriber's conditional placement. Direct Subscribers receive conditional placement ([including conditional Trajectory Order](#)) message interactions, as described in Part III, Item 9. Direct Subscribers' orders and conditional placements do not pass through the BofAS SOR. Orders and conditional placements of Direct Subscribers using a third-party external market access gateway pass through such gateway, but the gateway does not have information about orders or conditional placements resident in Instinct X's book other than those placed into the book by a Direct Subscriber using the respective gateway. When there is a potential match involving a conditional placement, Instinct X sends a Firm-Up Invite message to the Direct Subscriber that sent the conditional placement.**

- 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.

**Part III: Manner of Operations**

**Item 20: Suspension of Trading**

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

Instinct X will accept Subscriber orders and conditional placements but (other than for IXCC Orders) will not cross orders and conditional placements during a regulatory halt, when a symbol is quoted in Limit Up/Limit Down status, or when market data is delayed. With respect to IXCC Orders, if a LULD or other regulatory halt is in effect during any portion of the time between the IXCC Offset Time and the time the official closing price is disseminated by the primary listing market for the NMS Stock, the IXCC Orders will be cancelled back unexecuted. If a LULD or other regulatory halt is in effect at the time an IXCC Order is received but lifted before the IXCC Offset Time, the IXCC Order will be eligible for matching and execution in the IXCC. For Trajectory Orders, if a regulatory halt occurs during the duration of the Trajectory Order, Instinct X will cancel the remaining, unexecuted shares of the Trajectory Order. In the event of a symbol entering LULD status, Instinct X will cancel the remaining, unexecuted shares of the Trajectory Order. Additionally, BofAS can, in its sole discretion, elect to suspend operation of Instinct X at any time, including the suspension of trading in individual NMS stocks for, among other reasons, approaching Regulation ATS Fair Access and Regulation SCI volume thresholds. BofAS will make reasonable efforts to notify Subscribers electronically in a timely manner in the event of such an occurrence. In the event of a suspension of trading in Instinct X generally or in a particular NMS stock, Instinct X will cancel all existing unexecuted orders and conditional placements and reject any new orders and conditional placements, including Firm-Up Accepts. Orders executed prior to a suspension will be reported to the Subscriber.

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

Yes  No

**Part III: Manner of Operations**

**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.

All transactions executed in Instinct X are reported as crosses through the FINRA/Nasdaq Trade Reporting Facility Carteret ("Primary TRF"), in accordance with FINRA requirements. These transactions are reported under the MPID "MLIX" for publication on the Consolidated Tape. In the event of an issue with the Primary TRF, BofAS will elect to either cease trading or to report to a backup TRF (e.g., FINRA/Nasdaq TRF Chicago). Trajectory Cross transactions are reported using the appropriate modifier for weighted average price. Note, consistent with trade reporting requirements, Instinct X does not report matches of Firm orders or conditional placements where there is no change in beneficial ownership.

- 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

**Part III: Manner of Operations**

**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.

**Instinct X prices, prioritizes, and executes orders using a BBO constructed by Ocean, a third-party technology provider for Instinct X. Ocean constructs the BBO using a combination of full network redundant direct market data feeds and market data disseminated by the Securities Information Processors ("SIPs") (the "Constructed BBO"). Specifically, Instinct X uses direct market data feeds for all exchanges other than LTSE (which does not offer a direct market data feed and for which Instinct X uses the SIP). Separately, Instinct X uses full network redundant SIP feeds as a secondary source of the BBO and for the Volatile Quote Protection attribute when enabled (as discussed above in Part III, Item 7). For Trajectory Cross Orders, Instinct X calculates the VWAP using executions reported on the SIPs.**

- 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