

## 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:

For Non Close orders: The ATS supports three order types, each of which is available across all forms of connectivity. Each order type may have a Time-in-Force of Day or Immediate or Cancel (IOC). If an order is not marketable upon entry, it will either cancel immediately (if designated IOC), or rest on the book as a Day order until either executed, cancelled by the Subscriber or expired by the ATS at the end of the trading day. Supported Order Types: 1. Priced limit orders 2. Pegged orders: Limit price is derived dynamically from the current NBBO. Subscribers may include an optional absolute limit price above/below which a pegged buy/sell order will not execute. Pegged order types include: a. Midpoint peg orders: Pegged to the midpoint of then-current NBBO (**Note, Midpoint Peg orders have separate matching logic as described in Part III, Item 11(c)**) b. Market peg orders: Pegged to the opposite side of the market (buy/sell at then-current national best offer/bid) c. Primary peg orders: Pegged to the near side of the market (buy/sell at then-current national best bid/offer) Pegged orders do not receive a new time stamp if the order price is dynamically adjusted due to a change in NBBO. 3. Market orders: Buy/sell at then-current national best offer/bid, or better. Pursuant to SEC Regulation NMS, for orders priced equal to or greater than \$1.00, the ATS will neither accept orders priced in sub-pennies, nor will it accept orders that would explicitly lead to a sub-penny price (e.g., peg to inside bid plus 0.5 cents). However, the ATS will accept orders with a price target that potentially could lead to a sub-penny execution price (e.g., a midpoint peg order in a stock that has a one cent spread). The ATS supports the following order parameters: 1. MinQTY: Represents the minimum contra-side order quantity. All Subscribers may include MinQTY on an order-by-order basis. The ATS does not aggregate orders to meet MinQTY. By default, where leaves quantity is less than MinQTY, MinQTY is reduced to leaves quantity. During or after onboarding, a Subscriber may contact their sales representative to configure their MinQTY orders to cancel the leaves quantity in this scenario. 2. Time-In-Force: a. Immediate or Cancel (IOC) - The order will match with eligible resting contra-side orders and cancel back the balance. b. Day - The order will remain in the book until it is canceled, completely filled, or until the market closes at 4:00 PM. The ATS does not route orders or transmit indications of interest to any destination. Orders will only be accepted (and executed subject to matching conditions), cancelled by the order originator, or expired by the ATS at the end of the trading day. The ATS does not support post-only orders or orders with discretionary price ranges. The ATS will not combine orders or replace orders on an unsolicited basis. The BDO may remove ("bust") certain executions. For example, when the primary exchange makes a determination of clearly erroneous executions or, upon subscriber request and under certain limited circumstances such as when the Subscriber is on both sides of a cross and inadvertently crossed itself in the ATS. See the Error Handling section of Part III, Item 11(c). The ATS establishes order rank and execution priority strictly on a price-time basis. Order types and parameters will influence the price, priority, conditions, time stamp, and other attributes related to an order's potential for execution only inasmuch as the order types and parameters determine the theoretical matching price of an order (where the potential execution price of a buy order is greater than or equal to the lowest potential execution price of a sell order, limited by the NBBO and LULD bands), as described in Part III, Item 11(c).

For Close Orders: The ATS supports a Close order type ("Close order(s)"). Close orders will be matched after market closing at the closing price of the respective stock's primary market center closing price. Only Market Close orders are supported. Close orders with peg instructions are not supported and will be rejected. Close orders with a Min Qty instruction are not supported and will be rejected. Only a Day

time in force is supported. Close orders will be matched in time/size priority. Close order modifications and cancellations are supported until match event time as described in Part III item 11(c). For the purposes of time priority calculation, an order modification to a larger order quantity will reset order time to time of modification; an order modification to a smaller order quantity will maintain the original order time. Additionally, system outages may result in order cancellation. Close orders are available across all forms of connectivity to all ATS participants. The ATS does not route any orders, Close order or non Close order, to other trading centers.

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

☒ Yes ☐ No

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#### 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.

The ATS is an automated, continuous, price/time limit order matching book for NMS Stocks, with the exception of symbols on the Stopped Symbol List and other conditions under which trading is suspended, as described in Part III, Item 20. The ATS is comprised of an order book (the "ATS Order Book" or "Order Book") and a matching algorithm (the "ATS Matching Algorithm" or "Matching Algorithm"). The Order Book and Matching Algorithm rely on rules-based logic (See Part III, Item 11(c)), Subscriber selected order parameters (See Part III, Item 7(a)) and counterparty selection and other configurations as described in Part III, Item 14(a).

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.

The ATS supports Close and Non Close orders.

For Non Close orders: The ATS establishes priority on the Order Book first by price and then by time. Multiple orders executable at the same price will be ranked on the Order Book on a first-in-time basis. Subscribers and the BDO do not otherwise gain matching preference. The ATS includes only one pool of liquidity in which orders are matched in strict price/time priority; for example, it is not possible to rank in order of counterparty type. Orders accepted by the ATS include Agency, Principal, and Riskless

Principal capacities. Riskless Principal orders are the result of the BDO's facilitation of client orders, where the riskless leg of the order is executed in the marketplace at the same price as the price given to the client by the BDO. The ATS does not consider order capacity in its determination of order priority. For the purposes of determining Order Book priority, in compliance with Regulation NMS Rule 612, the ATS calculates an order's theoretical execution price by rounding the order to the nearest permissible increment, within the NBBO. For orders priced greater than or equal to \$1.00 having a price with more than two decimal places, the ATS will round the price in the Order Book as follows: Buys will round down to two decimal places; sells will round up to two decimal places. For orders in NMS Stocks priced less than \$1.00, the theoretical execution price is limited to four decimal places, and the ATS will round the price in the Order Book as follows: Buys will round down to four decimal places; sells will round up to four decimal places. Queue position cannot be improved through sub-tick-increment limit prices or setting the limit price of an order through the far touch. With respect to time prioritization on the Order Book, any Subscriber or BDO modification to an existing order results in that order receiving a new time stamp associated with the time of the modification, thus potentially changing the priority of that order in the Order Book. Pegged orders do not receive a new time stamp if the order price is dynamically adjusted due to a change in NBBO. Time stamping is in microsecond intervals. The Matching Algorithm reviews the Order Book for potential executions (crosses). Subject to Subscriber preferences (e.g., counterparty interaction restrictions; see Part III, Item 13), a cross in the ATS will only be possible when liquidity on the Order Book is available for both buy orders and sell orders and the theoretical execution price for buy orders is greater than or equal to the lowest theoretical execution price for sell orders, limited by the NBBO and LULD bands. Price improvement, where available, will be fully assigned to the liquidity remover, i.e., the second order to arrive in the Order Book resulting in a cross. If the theoretical execution price of a buy order is greater than the lowest theoretical execution price of a sell order, the execution price will favor the liquidity remover over the liquidity provider, whichever side the liquidity remover is on. Thus, for example, if the NBBO for XYZ stock is 10.00 - 10.02, a liquidity providing market peg order to buy will cross with a liquidity removing market peg order to sell at 10.02. The liquidity remover receives full price improvement. An IOC order is a liquidity removing order. For the same NBBO, a resting (Day) limit order to sell at 10.00 will cross with a midpoint peg IOC order to buy at 10.00. The ATS ensures that all crosses are executed at prices at or within the prevailing consolidated NBBO. This is because the theoretical execution price of an order submitted to the Order Book is limited by the NBB or NBO as applicable. Therefore, pricing an order through the NBBO does not affect price improvement calculations. The ATS Matching Algorithm will not run as long as any of the exceptions below are in effect. Throughout the duration of a Matching Algorithm Exception, the Order Book will continue to accept new orders, as well as cancel or replace requests for existing orders. However, throughout the exception, the Matching Algorithm will be disabled, and IOC orders will be cancelled after they are placed on the Order Book. On the other hand, Day orders will remain on the Order Book for the remainder of the trading day until cancelled or replaced by the client. Matching Algorithm Exceptions: 1. A trading halt exists in the name's primary market 2. The market is crossed, i.e. NBO < NBB, or 3. The market data quote received by the ATS is stale for more than a specific amount of time. This parameter is configurable and determined by the BDO. The ATS will continue to maintain the Order Book even when a Matching Algorithm exception is in effect. Other procedures governing trading: Short sales: Stocks subject to the Reg SHO Rule 201 short sale restriction will trade in the ATS only at a price greater than the current national best bid, unless an exception applies. Short sale orders, except those exempted under Reg SHO Rule 203, must be accompanied by a Locate Broker ID. Locked markets: In a

locked market (NBO=NBB), the Matching Algorithm will operate but orders will only cross if both the buyer and seller have opted in to crossing in a locked market. Handling of execution errors: Execution errors in the ATS will be handled in the same manner as any other execution error, as set forth in the BDO's internal Error Handling policy. Manual or system-generated errors caused by the BDO will be moved to a principal account for risk management by the BDO. Generally, Subscriber errors (e.g., if a Subscriber routed a sell order to the ATS instead of an intended buy order) cannot be moved to a principal account. Under certain limited circumstances, when a Subscriber is on both sides of a cross and inadvertently crossed itself in the ATS, the BDO may remove ("bust") the buy and sell orders participating in the cross, as described in Part III, Item 7(a). The ATS will continue to accept limit orders priced outside LULD bands but will not cross outside the bands. For pegged orders, the ATS will replace all current references to NBB/O with: Adjusted NBB = Maximum of (NBB, Limit Down) Adjusted NBO = Minimum of (NBO, Limit Up) This will result in the following behavior under these market conditions: a. Normal Condition (NBB $\geq$ LD and NBO $\leq$ LU): Matching will occur as prior to LULD b. Limit state (NBB=LU or NBO=LD): Orders will match at LU or LD, if the client has chosen to participate in a "LULD locked market" c. Straddle - Two types of scenarios: 1. LU straddle (NBO $>$ LU and NBB $<$ LU and NBB $\geq$ LD): Orders will match at or within NBB and LU (i.e. NBO is replaced by LU) 2. LD straddle (NBB $<$ LD and NBO $>$ LD and NBO $\leq$ LU): Orders will match at or within LD and NBO (i.e. NBB is replaced by LD) d. Super straddle (NBB $<$ LD and NBO $>$ LU): Orders will match between LD and LU e. NBBO outside bands - (NBO $<$ LD or NBB $>$ LU): No matching, as this scenario should not occur.

#### Midpoint peg orders:

The following applies to all orders sent with the Midpoint Peg execution instruction. The ATS accepts Midpoint peg orders for matching at the Midpoint of the NBBO in any given NMS stock traded in the ATS. The matching mechanism is near-continuous and matches orders at randomized time intervals from the start of trading until the end of the trading day. Midpoint peg orders will only match against contra side Midpoint peg orders. Non Midpoint peg order types will not interact with or match against Midpoint peg orders. Midpoint peg orders can be submitted with a Time In Force of Day or Immediate Or Cancel. Midpoint peg orders can be Market or Limit orders.

At the start of the trading day, on a stock-by-stock basis, for each stock traded in the ATS, the ATS will select a random Midpoint Match event interval between 1000 and 5000 microseconds. This interval will be the time interval until up to the first scheduled Midpoint Match event. At the time of that first Midpoint Match event, any Midpoint peg orders eligible for matching, will match. Matches will be priced based on the NBBO at the time of the Midpoint Match event in time priority. Upon the occurrence of the Midpoint Match event, any unexecuted Midpoint Peg Immediate or Cancel orders will be cancelled.

Upon the occurrence of Midpoint Match event, the ATS will again select a random time that is between 1000 and 5000 microseconds. This new interval will be the period of time leading up to the next Midpoint Match event. This Midpoint Match event process will continue until the end of the trading day.

Customers may cancel or modify Midpoint peg orders up until the Midpoint Match event time. For the purposes of time prioritization, the modification of the size of an existing Midpoint Peg order to a lesser size will not result in the loss of prioritization for that order and order time will be maintained as the time of original order entry. For the purposes of time prioritization, the modification of the size of an

existing Midpoint Peg order to a greater size or the modification of any limit price will result in the loss of prioritization for that order and order time will be reset to the time of the order amend.

Midpoint Peg Immediate or Cancel orders will be held in the order book and will be executed or automatically cancelled at the next Midpoint Match event time after the Midpoint Peg Immediate or Cancel order receipt.

Midpoint peg orders follow the suspension of trading rules as described in Part III Item 20. The Midpoint Match event time will continue to be calculated independently of the trading status of a stock. In the event of a resumption of trading in a previously suspended security, the next calculated Midpoint Match event time will be the first instance when Midpoint peg order(s) will match in the resumed stock.

With the exception of the above, Midpoint peg orders will follow all other established ATS matching rules, including but not limited to, Min Quantity, Segmentation, and Counterparty Selection rules.

Midpoint Peg execution instruction will initially be available for 6 symbols (SPY, QQQ, AAPL, SNOW, DISH, DVN) as of September 11, 2023 and will become available for all symbols supported by the ATS as described in Part III Item 11(a) as of September 25, 2023 and in each case subject to the Stopped Symbol Lists and other conditions described in Part III Item 11(a). The ATS will notify Subscribers by email notification if there are any changes to the timing or symbols available for the functionality described in this paragraph.

For Close orders: The ATS will accept Close orders for matching at the official closing price of the security's primary listing exchange. New Orders, Order modifications and order cancellations will be accepted up to the time of the ATS match event. For NYSE listed securities the match event time will be 15:56:50 EST. For all other exchanges, the match event time will be 10 seconds before the respective listing exchange's closing order cutoff time. At the match event, orders will be matched using time/size priority. Following the match event, participants will be notified of matched interest. Matched interest is the expected quantity that will be matched by the ATS after the closing price is disseminated by the primary listing exchange. Orders where the matched interest is less than the submitted quantity will be notified by having the submitted quantity of the respective order amended by the ATS to the matched interest quantity. Orders where the matched interest quantity is equal to the full submitted quantity will receive no amendment. Orders with no matched interest will be rejected back to the participant. Execution messages of the matched interest quantity will be sent after the official closing price is disseminated by the primary listed exchange. If no closing price for a symbol is provided by the primary listing exchange by 30 minutes after market close, Orders in such symbols will not be executed and will be cancelled back to participants. Close Order transactions will be trade reported as described in Part III item 21.

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

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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

For the purpose of counterparty type selection, the ATS segments Subscribers by counterparty type. There are five counterparty types: 1. Principal: All BDO principal orders routed to the ATS from internal BDO trading desks as described in Part II, Item 1; 2. Agency: Agency orders from External Subscribers not directly routed to the ATS but routed via the BDO's algorithms or Smart Order Routers, in which the Smart Order Router determines to route to the ATS or is directed to route to the ATS by the BDO's algorithms. External Subscribers that are an Institutional Client of the BDO and are using a 3rd party ATS aggregation or Dark Liquidity smart order routing service and where the identity of the External Subscriber is fully disclosed to the BDO. Orders of the BDO's Affiliates, whether entered by such Affiliate in a principal or agency capacity, would be categorized as the counterparty type "Agency" to the extent not directly routed to the ATS via FIX connectivity to the BDO's low-latency Direct Market Access platform or its Smart Order Router. Orders of the BDO's Affiliates, to the extent being directly routed to the ATS, entered by such Affiliate in a principal or agency capacity, whether routed into the ATS via FIX connectivity to the BDO's low latency Direct Market Access or its Smart Order Router would be categorized as counterparty types "Direct Low", "Direct Medium" or "Direct High" as applicable. The following three counterparty types include External Subscribers directing orders to the ATS via FIX connectivity to the BDO's low-latency Direct Market Access platform or its Smart Order Router, and Liquidity Partners who route via direct FIX connectivity to the ATS. 3. Direct low: Agency orders routed directly to the ATS by External Subscribers deemed by the BDO to have low average price reversion. 4. Direct Medium: Agency orders routed directly to the ATS by External Subscribers deemed by the BDO to have medium average price reversion. 5. Direct High: Agency orders routed directly to the ATS by External Subscribers deemed by the BDO to have high average price reversion. Price reversion is determined by the notional weighted average midpoint to midpoint price movement after execution over a ~~one second defined time interval~~ **one second defined time interval solely for orders where the Subscriber is the liquidity remover, i.e., the second order to arrive in the Order Book resulting in a cross.** Upon onboarding, the BDO assigns External Subscribers to either the Agency or the Direct Medium counterparty type, based on the Subscriber's routing arrangements with the BDO. The counterparty selection assignment is subject to subsequent monthly reviews by the BNPP Cortex ATS Working Group. The BDO may also perform ad hoc reviews of counterparty selection assignment for any reason. Based on changes in the Subscriber's historical trading activity, the Working Group may determine that a Subscriber's initial counterparty selection type requires reassignment to a different type and will typically notify such Subscriber of such change within one business day of such change. As described in Part II, item 3(a), a Subscriber may request that its orders not be crossed with orders from particular counterparty segments. A Subscriber's assignment to a particular counterparty segment does not impact how the Subscriber's orders are prioritized in the ATS's Order Book, as described in Part III, Item 11(c). **As described in part III, item 11(c), Midpoint Peg Orders may only match against other Midpoint peg orders, all other segmentation rules as previously described apply.**

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.

The ATS discloses a Subscriber's classification only to that Subscriber, first upon onboarding and later upon request. In addition, if the BDO modifies a Subscriber's counterparty type, the BDO will notify the Subscriber. The designated classification cannot be contested.

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