

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).

Virtu Americas, LLC operates POSIT and other business units that can enter or direct the entry of orders to POSIT or result in an order being entered or directed to POSIT. The Firm's business units each use one or more technology platforms that have MPIDs associated with the platform. A single business unit can enter or direct orders to the ATS through more than one technology platform and consequently under more than one MPID. These business units are described below.

Virtu Electronic Trading ("VET"). VET provides algorithms that are used by clients and the Firm's business units. VET algorithms enter or direct the entry of orders to POSIT as agent when those orders are entered by clients into the algorithms or as principal or riskless principal when one of the other business units enters orders into the algorithms using the MPIDs: ~~DTTX, GFLO, VALR, VALX and ITGI and ALTX. ALTX ("Alternet") cannot enter or direct the entry of orders into the Alert Crossing Session. See Part III, Item 9a for more detail on the Alert Crossing Session.~~

Virtu Client Market Making ("VCMM"). VCMM handles held and not held orders transmitted by other broker-dealers and held orders transmitted by institutions. The majority of these orders are SEC Rule 605 eligible orders and are handled and executed on a fully automated basis. VCMM sales and trading personnel handle larger and less liquid orders manually and can use VET algorithms in connection with their market making activities. VCMM enters or directs the entry of orders to POSIT as principal, riskless principal and agent to acquire inventory to fill orders or to acquire positions for its own account using the following MPIDs: NITE, ~~GFLO~~, VALR and VALX.

Virtu Institutional Trading ("Institutional Trading"). Institutional Trading handles not held orders transmitted by institutional clients and facilitates block transactions in single stocks. Institutional Trading uses VET algorithms to enter or direct the entry of orders as principal or riskless principal in connection with its client facilitation activities using the following MPIDs: NITE, ~~GFLO~~, VALX and ITGI.

Virtu Hi-Touch Portfolio Trading: Traders on this desk handle not held orders in baskets of stocks and ETFs. Traders can enter or direct the entry of orders through VAL Electronic Systems into the ATS as agent under the MPID ITGI.

Virtu ETF Trading (“ETF Trading”). ETF Trading makes markets on exchanges and facilitates block transactions in exchange traded products for broker-dealer and institutional clients. ETF Trading uses VET algorithms to enter or direct the entry of orders as principal or riskless principal in ETFs and singles stocks using the MPID VALX.

Virtu Principal Market Making (“VPMM”). VPMM is a market maker in NMS equity securities. VPMM enters or directs the entry of orders as principal to POSIT utilizing the MPID VIRT.

Item 2: Affiliates Trading Activities on the ATS

- a. Are Affiliates of the Broker-Dealer Operator permitted to enter or direct the entry of orders and trading interest into the NMS Stock ATS?

Yes ☐ No ☐

If yes, name and describe each type of Affiliate that enters or directs the entry of orders and trading interest into the ATS (e.g., broker-dealer, NMS Stock ATS, investment company, hedge fund, market maker, principal trading firm), and, for each Affiliate, provide the applicable MPID and list the capacity of its orders and trading interest (e.g., principal, agency, riskless principal).

VAL’s Canadian, EU and Asia Pacific Affiliates are broker-dealers that offer products and services similar to VET and have hi-touch desks, all of which can enter or direct the entry of orders to POSIT through VAL. VAL enters or directs orders to the ATS for these Affiliates as agent or riskless principal using the -VAL MPIDs ~~GFLO~~, VALR, VALX or ITGI.

Item 3: Order Interaction with Broker-Dealer Operator; Affiliates

- a. Can any Subscriber opt out from interacting with orders and trading interest of the Broker-Dealer Operator in the NMS Stock ATS?

Yes ☐ No ☐

If yes, explain the opt-out process.

VAL offers Subscribers the ability to opt out of interacting with principal orders entered into POSIT under the MPIDs NITE, VIRT and VALX (“the Principal Opt-Out”). Orders entered into POSIT by VAL under the MPIDs ~~DTTX~~, ~~GFLO~~, VALR- and ~~ALT~~X-ITGI are not subject to the Principal Opt-Out.

Subscribers can request the Principal Opt-Out through their sales persons. Following receipt of a request, the sales person will enter a ticket to make the request. Thereafter, an entry is made in a configuration file which will take effect in most cases on the next business day, but could take effect either the same day or greater than the next business day, depending upon the time of day the request is submitted. When the POSIT matching logic is applied, the configuration file is checked to determine whether orders are eligible for crossing with VAL or its Affiliate's principal orders entered under the above referenced MPIDs. VAL does not allow POSIT Subscribers to opt out of interacting with any orders submitted to POSIT by VAL or its Affiliates when they are submitted under any of the other MPIDs referenced in Part II, Item 2(a). The Principal Opt-Out configuration is applied for all crossing sessions.

- b. Can any Subscriber opt out from interacting with the orders and trading interest of an Affiliate of the Broker-Dealer Operator in the NMS Stock ATS?

Yes ☐ No ☒

If yes, explain the opt-out process.

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).

VAL offers a conditional messaging system known as Alert. Alert is an anonymous Conditional Order matching application that exists outside of the POSIT matching engine. Alert has two types of participants: Human Participants and Electronic Participants. Alert has three message types: A Conditional Order; an Invitation to Firm-Up; and a Firm-Up Response Order.

Human Participants install Alert software, which can be installed on a variety of OMS or EMS systems, on their systems. The Alert software takes in information about Human Participants orders resident in the OMS or EMS and transmits that information to the Alert matching

application in the form of a Conditional Order. Alert Human Participants configure the frequency at which the Alert software takes in information about orders resident in their OMS or EMS. The Alert software also provides Alert participants with a graphical user interface (“the Alert Front End”) that allows users to see pending Conditional Orders and respond to Invitations to Firm-Up. Human Participants can manually respond to Firm-Up Requests or configure the Alert software to automatically respond. For Human Participants, Alert will send the Invitation to Firm-Up to the Alert Front End via a pop up window, requesting the Human Participant to Firm-Up. The pop up window indicates that a contra order exists in a given symbol, but does not provide any size or price information of the contra order. For an execution to occur, the Human Participant must respond to the pop-up window by submitting a Firm-Up Response. The one exception to this workflow is for Human Participants who have enabled Auto-Ex on their order, which is described in Part III, Item 7a. The Auto-Ex order instruction can only be set by the Human Participant in the Alert software. The Auto-Ex instruction will remain in effect until one of the following occurs: 1. The Human Participant turns off Auto-Ex on the order, 2. The Human Participant is fully filled on the Auto-Ex order, 3. The trading day ends. The Alert software will then send a Firm-Up Response Order from the Human Participant’s EMS to VAL for submission to the POSIT ATS Alert Crossing Session that references the invitation and matches the attributes of the invitation in terms of symbol, side and quantity. Human Participants can change order quantities up or down prior to submitting a Firm-Up Response. VAL’s agency desks and clients of its Affiliates cannot use the Alert Front End to view and interact with conditional interests. They are Electronic Participants and can only send orders to algorithms that can send Conditional Orders through Alert.

Electronic Participants do not install Alert software. Rather, Electronic Participants transmit Conditional Orders directly to the Alert matching application through the Electronic Participant’s algorithm or electronic system. Alert will send an Invitation to Firm-Up to the algorithm or system that entered a Conditional Order when a potential matching opportunity exists. When the Invitation to Firm-Up message is sent to an Electronic Participant, the Electronic Participant’s original Conditional Order is automatically canceled. Hereinafter, Electronic Participant and algorithm or system shall have the same meaning. For an execution to occur, the Electronic Participant must respond to the invitation by transmitting a Firm-Up Response Order. Alert will transmit an Invitation to Firm-Up to the Electronic Participant containing the same number of shares included in the Electronic Participant’s original Conditional Order. The Electronic Participant may then respond by sending a Firm-Up Response Order to VAL for submission to the POSIT ATS Alert Crossing Session that references the invitation and matches the attributes of the invitation in terms of symbol, side and quantity. The Electronic Participant may transmit a Firm-Up Response Order with a quantity that is less or more than the invited quantity. An execution will occur to the extent that Firm-Up Response Orders are received by POSIT within the designated response time, subject to other instructions placed on the orders by the participant, as described in Part III item 7. All business units and affiliates of the broker dealer operator that enter or direct the entry of orders into POSIT ALERT are considered Electronic Participants, and are not treated any differently than Electronic Participants external to the broker dealer operator.

When multiple Conditional Orders are present on the same side and same symbol, the Alert matching application will give invitation priority in the following order: Human Participant with Auto-Ex enabled, Human Participant without Auto-Ex enabled, Electronic Participant. When

two participants are on the same side and fall within the same participant type (i.e., two Human Participants with Auto-Ex enabled, two Human Participants without Auto-Ex enabled, or two Electronic Participants), the Alert matching application will use order size as the second order of invitation priority. For example, if two Human Participants are present on the same side and same symbol, and a single contra order is submitted, the Human Participant with the largest order size will receive an invitation message. Lastly, if two participants are on the same side, fall within the same participant type, and have the same order size, order submission time will be used as the third order of priority to determine which participant would receive the invitation.

The response time to the Invitation to Firm-Up is a function of the type of participants invited. Electronic Participants must respond within 1 second, while Human Participants without Auto-Ex enabled have 30 seconds to respond. Participants who do not respond within these time frames will not be eligible to participate in the match.

Alert invites all participants in the potential match simultaneously, except as described below. When an Electronic Participant has a potential match against a Human Participant, the Human Participant will receive the Invitation to Firm-Up first. Once the Human Participant firms up, an Invitation to Firm-Up is then sent to the Electronic Participant. If the Human Participant does not firm up, the Electronic Participant will not receive an Invitation to Firm-Up.

In addition to the messaging described above to Alert participants, Alert will transmit information to POSIT on the potential Alert match. At the time Invitations to Firm-Up are sent to participants, Alert sends the following information to POSIT on the potential Alert match: 1) Number of buyers, 2) Number of sellers, 3) Number of Human Participants, 4) Symbol, 5) Response timer. POSIT will run the match at the earlier of when all participants submit firm up orders to POSIT or the expiration of the response timer.

After the completion of the match, or the expiration of the response timer, POSIT will transmit information on the outcome of the match back to Alert. This information is stored to log files that are consumed by a front end application called Phoenix. Phoenix is used by Alert Sales and Coverage personnel to monitor client orders in Alert, as described in Part II, Item 6a.

Upon request, POSIT will apply a maximum notional value constraint, set by the Alert participant, to an Alert participant's order. In addition, upon request, POSIT will aggregate an Alert participant's orders for execution. Where such Alert orders have a common MEQ instruction, POSIT will apply the MEQ instruction on the aggregated Alert order.