

December 19, 2016

## **Liquidnet Canada Trading Rules<sup>1</sup>**

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<sup>1</sup> For more detail, please refer to the Liquidnet Trading Rules document, which provides information on Liquidnet's global trading services. The Liquidnet Canada Trading Rules document is intended as a summary of relevant provisions of Liquidnet's global Trading Rules document relating to trading of Canadian equities on the Liquidnet Canada ATS.

## **Part I. Liquidnet trading services**

### **Section 1.01 Liquidnet trading services**

This document describes the various trading services offered by Liquidnet Canada Inc. (“Liquidnet” or “Liquidnet Canada”). The trading services offered by Liquidnet include all the trading and trading-related services described in this trading rules document, including the following services:

- **Brokerage services.** The brokerage services offered by Liquidnet involve the receipt and handling of orders and indications from Members and customers (as defined below); these services include providing access to the execution systems operated by Liquidnet and to external execution venues, as described throughout this document.
- **Negotiated execution services.** Liquidnet’s negotiated execution systems provide functionality for negotiated executions, as described in Part VI below.
- **Liquidnet H2O execution services.** Liquidnet’s H2O execution systems provide functionality for H2O executions, as described in Part VII below.
- **Execution consulting services.** Liquidnet provides execution consulting services to Members and customers with a focus on Liquidnet’s algorithmic offering, as described in Section 9.02 below.
- **Transaction cost analysis service.** Liquidnet’s execution consulting services personnel provide a transaction cost analysis (TCA) service, as described in Section 9.02 below.
- **Commission management services.** Liquidnet offers commission management services, as described in Section 9.04 below.
- **Analytics.** Liquidnet provides pre-trade and post-trade analytics, as described in Section 9.05 below.
- **Fixed income trading services.** Liquidnet provides fixed income trading services, as described in Section 9.06 below.
- **Anti-gaming services.** Liquidnet provides anti-gaming services, as described in Section 11.09 below.

Liquidnet’s negotiation and H2O execution systems are sometimes referred to as the “Liquidnet execution venues.”

### **Section 1.02 Liquidnet technology**

The Liquidnet technology comprises all trading and trading-related technology offered or provided by Liquidnet, including the following:

- ***The Liquidnet network.*** The Liquidnet network consists of all technology operated by Liquidnet to facilitate trading and trading-related services on behalf of its Members, customers and LPs (as defined below).
- ***Liquidnet client software.*** The Liquidnet client software consists of all software provided to Members and customers, including the Liquidnet trader application that is installed on trader desktops at Member firms (as described below).
- ***Liquidnet integration adapter.*** The Liquidnet integration adapter integrates Liquidnet’s systems with a Member’s or customer’s order management system or execution management system (“OMS”).

The Liquidnet technology is also referred to as the “System” or “Liquidnet”.

### **Section 1.03 Liquidnet entities and countries or regions**

#### ***Liquidnet dealing entities and countries or regions***

Worldwide, there are six Liquidnet entities that conduct a securities business. Each Liquidnet dealing entity provides the Liquidnet trading services in the specified countries or region:

| <b>Liquidnet entity</b>      | <b>Countries or Region</b>       |
|------------------------------|----------------------------------|
| Liquidnet, Inc.              | US and Mexico                    |
| Liquidnet Europe Limited     | Europe, South Africa, and Israel |
| Liquidnet Canada Inc.        | Canada                           |
| Liquidnet Asia Limited       | Asia                             |
| Liquidnet Australia Pty Ltd. | Australia and New Zealand        |
| Liquidnet Japan Inc.         | Japan                            |

#### ***Role of Liquidnet dealing entities in the trading process***

A Member or customer located in a specific region is a Member or customer of the Liquidnet entity in that region (for example, a Member located in Canada is a Member of Liquidnet Canada). A Member located in Canada also is considered a direct participant of the Liquidnet Canada ATS when transmitting a negotiated order, a Liquidnet Only algo order, an LN auto-ex order or an automate negotiation order (see Parts III, IV, V and VI).

Each Liquidnet entity, and the alternative trading system (ATS) or multilateral trading facility (MTF) that it operates (where applicable), is responsible for execution of trades for the market(s) within its region (for example, Liquidnet Canada is responsible for execution of trades in Canadian equities).

If a Member, customer or LP located in a specific region transmits an order for an equity in another region, Liquidnet’s systems record that order as being routed by the Liquidnet entity in the Member’s, customer’s or LP’s region to the Liquidnet entity responsible for execution. The

entity located in the Member's, customer's or LP's region is considered the routing broker; the entity responsible for execution is considered the executing broker. The foregoing is subject to the following exceptions pertinent to the Liquidnet Canada ATS:

- Negotiated, Liquidnet Only algo, LN auto-ex and automate negotiation orders by Canadian Members in non-Canadian equities are routed by the Liquidnet Canada ATS to the applicable executing broker.
- Negotiated, Liquidnet Only algo, LN auto-ex and automate negotiation orders by non-Canadian Members in Canadian equities are routed by the applicable routing broker to the Liquidnet Canada ATS.

Liquidnet Canada Inc. (Liquidnet Canada) is authorized as an investment dealer (or equivalent) by the Ontario Securities Commission (OSC), the Autorité des Marchés Financiers of Quebec and the British Columbia, Alberta, Saskatchewan, Manitoba and New Brunswick Securities Commissions. Where required, Liquidnet Canada operates the Liquidnet Canada ATS, which is also registered in these provinces. Liquidnet Canada is a member of and regulated by the Investment Industry Regulatory Organization of Canada (IIROC). Liquidnet Canada is a member of the Toronto Stock Exchange and the TSX Venture Exchange.

The Liquidnet Canada ATS is responsible for all negotiation and H2O functionality for Canadian equities. The Liquidnet Canada ATS also is responsible for (i) receipt and routing of negotiation orders, Liquidnet Only algo, LN auto-ex and automate negotiation orders by Canadian Members in non-Canadian equities, and (ii) receipt and routing of orders by Canadian Members in non-Canadian fixed income securities.

In addition to the exchange memberships identified above, Liquidnet Canada may be a subscriber to various registered and non-registered trading venues, as set forth in the Liquidnet Order Handling Q and A document.

### ***Liquidnet Holdings***

Liquidnet Holdings, Inc., based in the US, is the direct or indirect parent company of each of the Liquidnet dealing entities. Pursuant to agreements entered into between Liquidnet Holdings and each of the dealing entities, Liquidnet Holdings provides technology-related services to the dealing entities, including services related to the development, testing and maintenance of Liquidnet's trading systems. The agreements include licensing of technology developed by Liquidnet Holdings. Liquidnet Holdings owns a minority interest (approximately 20%) in OTR Global Holdings II, Inc. OTR is an independent research provider.

## **Section 1.04 Liquidnet participant categories**

### ***Participant categories***

The Liquidnet participant categories for Canadian equities are as follows:

- Members
- Trading desk customers
- Canada broker blocks participants
- Liquidity partners.

### ***Members***

A “Member” is an entity that meets the Member admission and retention criteria set forth in Section 1.05 below and interacts with the Liquidnet broker in the Member’s region. Members transmit indications from their OMS to Liquidnet and manage those indications through the Liquidnet desktop application, which is installed at one or more trader desktops at the Member firm. Indications can be transmitted through a periodic sweep, FIX transmission or other method agreed among Liquidnet, the Member and the OMS vendor, as applicable.

### ***Trading desk customers***

A “trading desk customer” is an entity that interacts with the Liquidnet broker in the customer’s region but does not have access to the Liquidnet desktop application. A trading desk customer interacts with Liquidnet by transmitting orders to the Liquidnet trading desk. Trading desk customers include customers that transmit orders to Liquidnet through their OMS.

### ***Canada broker blocks participants***

“Canada broker blocks participants” are IIROC-registered Canadian brokers that can send orders to Liquidnet Canada. Their resting orders interact with Liquidnet liquidity in the same manner as orders from trading desk customers, but trading desk personnel do not have access to order information of Canada broker blocks participants. Members and customers elect whether to interact with Canada broker blocks participants.

Canada broker blocks participants include Liquidnet Canada acting as agent on behalf of any of its non-Canadian dealer affiliates, which, in turn, are acting as agent on behalf of a third-party dealer registered outside of Canada. In such cases, Liquidnet Canada’s non-Canadian dealer affiliate routes the order directly to Liquidnet Canada, which transmits the order to the Liquidnet Canada ATS.

### ***Customers***

Trading desk customers and Canada broker blocks participants as a group are referred to as “customers.” Buy-side trading desk customers can make elections relating to the sources of liquidity with which they interact and use of their trading information. These elections are not currently available to Liquidnet Capital Markets customers, transition managers and Canada broker blocks participants.

### ***Traders***

A “trader” is an employee of a Member or customer firm who has been authorized by the Member’s or customer’s system administrator to transact business with Liquidnet.

### ***Participating as a Member and customer***

A firm can be both a Member and a customer. When transmitting orders to the applicable Liquidnet broker through the Liquidnet desktop application, the firm is considered a Member; when transmitting orders through the Liquidnet trading desk, the firm is considered a customer.

### ***Liquidity partners***

“Liquidity partners” (LPs) are exchanges, ATSS and brokers that transmit immediate-or-cancel (IOC) orders to Liquidnet H2O for execution. LPs do not have access to the Liquidnet desktop application. LPs do not interact with the Liquidnet negotiation system. LPs cannot make elections pursuant to Liquidnet Transparency Controls.

### ***Other participant workflows***

Liquidnet can settle Member and customer trades with a broker designated by a Member or customer, where the broker provides a single-ticket clearing service to the Member or customer, as described in Section 11.07.

## **Section 1.05 Admission and retention criteria for Members, trading desk customers, Canada broker blocks participants and liquidity partners**

### ***General***

This section sets forth the admission and retention criteria for participation as a Liquidnet Member, trading desk customer, Canada broker blocks participant or liquidity partner. As discussed in Section 1.04 above, Members can have access to the Liquidnet desktop application; trading desk customers, Canada broker blocks participants and LPs do not.

### ***Admission and retention criteria for Members***

- A Member must be a buy-side institutional investor (also referred to as an “institutional investor” or “buy-side firm”).
- A Canadian Member must have total equity assets, or total equity assets under management, of US \$100 million or more, or the equivalent in another currency.
- A Member must execute block trades as part of its regular course of trading activity.
- A Member must have an order management system (OMS) with which Liquidnet can interface. An OMS is software that a firm uses to manage its order flow.
- A Member must comply with Liquidnet’s usage protocols as made available by Liquidnet.
- A Member must enter into a subscriber agreement and other documentation required by Liquidnet.

- A Member must satisfy credit and legal criteria as Liquidnet or its clearing broker may establish from time to time. This includes Liquidnet's compliance with any customer identification procedure and other anti-money laundering rules and regulations relating to customer due diligence.
- Liquidnet's clearing broker must consent to the institution as a Liquidnet customer.
- Liquidnet can terminate a Member's participation based on an inadequate level of System usage.

***Admission and retention criteria for trading desk customers***

- A Liquidnet Canada trading desk customer must be an institutional investor.
- A trading desk customer must satisfy credit and legal criteria as Liquidnet or its clearing broker may establish from time to time. This includes Liquidnet's compliance with any customer identification procedure and other anti-money laundering rules and regulations relating to customer due diligence.
- Liquidnet's clearing broker must consent to the entity as a Liquidnet customer.
- Liquidnet can terminate a trading desk customer's participation based on an inadequate level of System usage.

***Admission and retention criteria for Canada broker blocks participants***

- A Canada broker blocks participant must be a Canadian securities dealer that is a member of IIROC.
- A Canada broker blocks participant must satisfy credit and legal criteria as Liquidnet or its clearing broker may establish from time to time. This includes Liquidnet's compliance with any customer identification procedure and other anti-money laundering rules and regulations relating to customer due diligence.
- Liquidnet's clearing broker must consent to the entity as a Liquidnet customer.
- Liquidnet can terminate a Canada broker block participant's participation based on an inadequate level of System usage.

***Admission and retention criteria for liquidity partners***

- The LP and Liquidnet must enter into and maintain in effect a routing agreement mutually acceptable to the LP and Liquidnet, and the LP must comply with its obligations under the agreement.
- The LP must interact with Liquidnet in conformance with Liquidnet's technical and functional specifications and in compliance with any restrictions on use of order information.
- Members can only interact with LPs when they affirmatively create a Liquidnet algo or LN auto-ex order.
- Liquidnet can terminate a liquidity partner's participation based on an inadequate level of System usage.

## **Section 1.06 Liquidnet Transparency Controls**

Liquidnet makes available to Members and buy-side trading desk customers a web-based system known as Liquidnet Transparency Controls. Liquidnet Transparency Controls allows Members and such customers to easily see details about the liquidity sources with which they interact and the products and services they participate in that utilize their trading information. Members and such customers use the tool to make elections relating to those liquidity sources and products and services that are complementary to Liquidnet's core offering.

Liquidnet has completed its implementation of Liquidnet Transparency Controls. This implementation has involved Liquidnet Sales coverage personnel meeting with Head Traders (or other firm representatives, as designated by the Head Trader) representing approximately 80% of Liquidnet's Members and customers to review and update their firms' elections relating to liquidity sources and Liquidnet's use of trading information. Any firm that has not made its elections through Liquidnet Transparency Controls has been automatically opted-out from interacting with non-core liquidity sources and any non-core use of trading information by Liquidnet. Head Traders who have not made their elections through Liquidnet Transparency Controls can contact their Liquidnet Sales coverage to schedule a meeting. Members or customers can contact their Sales coverage for information regarding their current configurations.

A participant's opt-in to a service through Liquidnet Transparency Controls means that Liquidnet will make the service available to the participant assuming the participant otherwise qualifies for access to the service based on these trading rules. In certain cases, where a participant has opted-in to a specific service through Liquidnet Transparency Controls, Liquidnet can, upon the participant's request, disable the service for specific traders or instrument types. In certain cases, Liquidnet does not report these configurations through the Liquidnet Transparency Controls website, but upon request Liquidnet can provide a participant with a list of any such configurations requested by the participant and implemented by Liquidnet.

## **Section 1.07 Interacting with sources of liquidity**

### ***Member and customer elections regarding certain sources of liquidity***

Members and eligible customers can choose whether or not to interact with certain sources of liquidity. For elections relating to liquidity sources, eligible customers are buy-side trading desk customers. These choices apply to negotiations and Liquidnet algo, LN auto-ex and automate negotiation orders.

Specifically, Members and eligible customers can choose whether or not to interact with:

- IOC orders from LPs
- Actionable resting orders from Canada broker blocks participants (Canadian equities)
- Liquidity from Liquidnet Capital Markets (LCM) customers (US equities).

With regard to order flow from LCM customers, Members and eligible customers can elect whether or not to interact with any or all of the following categories of LCM customers:

- Public companies
- Private equity
- Venture capital
- Individual and corporate control persons of public-issuer stock (directors, officers, employees and corporations with controlling interests).

Interaction with liquidity from Liquidnet Capital Market customers also is available for Canadian equities, except that interaction with LCM customers for Canadian equities is limited to interaction with private equity and venture capital firms. Interaction with public companies and individual and corporate control persons is not available for Canadian equities.

Interaction with a private equity or venture capital firm includes interaction with the firm's limited partners in the situation where the private equity or venture capital firm distributes an equity position to its limited partners.

In determining how to classify a Member or customer that engages in more than one type of business activity, Liquidnet seeks to ascertain the primary business activity of the Member or customer firm's business unit that interacts with Liquidnet.

#### ***Sources of liquidity for which an election is not available***

All Members and customers interact with the following sources of liquidity and cannot choose whether or not to interact with these sources of liquidity:

- Indications and orders from other Members
- Order from buy-side trading desk customers
- Orders from trading desk customers that are transition managers.

Liquidnet can approve blocking matches with affiliates. Blocking for Canadian equities is not otherwise permitted, except for temporary symbol blocks as described in Section 11.11.

Opposite-side indications or orders with the same Member or customer ID cannot match with each other.

#### ***Display of contras***

Matches with the following sources of liquidity are displayed to a Member in the same manner as matches with a buy-side contra Member:

- Liquidity from trading desk customers, including Liquidnet Capital Markets customers
- Actionable resting orders from Canada broker blocks participants (Canadian equities).

#### ***Member and customer interaction with LPs***

Members and customers only interact with IOC orders from LPs when they affirmatively create a Liquidnet algo or LN auto-ex order.

Liquidnet maintains a current list of LPs and provides it to Members and customers upon request. For Canadian equities, a Member or customer can block interaction with a specific LP if the Member or customer is affiliated, and restricted from trading, with the LP for a legal, regulatory or compliance reason.

When creating a Liquidnet algo or LN auto-ex order for Canadian equities, a Member can select on an order-by-order basis whether or not to interact with LPs.

### ***Process for Members and customers to confirm and update their elections***

Liquidnet maintains for each Member and customer a record of each source of liquidity with which the Member or customer interacts. Through the Liquidnet Transparency Controls web-based system, Members and eligible customers can view and update the sources of liquidity with which they interact. Any changes input through Liquidnet Transparency Controls are implemented within twenty-four hours. Members and customers should contact their Liquidnet Sales coverage with any questions.

### **Section 1.08 Securities traded by Liquidnet**

Liquidnet provides services and software for trading in equity securities that are listed in Canada. Only exchange-listed equities can be traded on a Liquidnet execution venue.

### **Section 1.09 Hours of trading**

Liquidnet is open for extended trading hours. Canada's hours of operation are 8am – 5pm (local time, ET). For more detail, see the "Liquidnet hours of operation" posted on the Liquidnet Member website.

### **Section 1.10 Execution fees**

Liquidnet's execution fees for Members are set forth in the Commissions and Fees document, which is posted on Liquidnet's public website at <http://www.liquidnet.com/#/about-us/regulatory> under the Liquidnet Canada heading.

### **Section 1.11 Mid-price or better order instructions; price constraints**

#### ***General***

Liquidnet's negotiation and H2O execution functionality provide for mid-price executions in certain situations, as described in Parts VI and VII below.

#### ***Mid-price***

“Mid-price” means the mid-point between the highest displayed bid price and lowest displayed ask price in the applicable jurisdiction at the time of execution. Liquidnet determines the best bid and best ask by reference to the applicable market data feed sourced by Liquidnet, as described in Section 11.03 below.

If the spread is one cent, the mid-price is ½ cent above the best bid and below the best ask. If the spread is zero cents, the mid-price is the best bid/best ask. If the spread is negative (i.e., the best bid is higher than the best ask), Liquidnet will not execute the order. If the spread is zero, Liquidnet will not execute the order.

### ***Mid-price or better order instruction***

At present, Liquidnet imputes a mid-price or better order instruction for all algo, LN auto-ex, automate negotiation and LP orders. A “mid-price or better order instruction” means:

- In the case of a buy order, Liquidnet can only execute the order at the mid-price or lower
- In the case of a sell order, Liquidnet can only execute the order at the mid-price or higher.

### ***Price constraint***

On any order, a user can provide a fixed limit price. If a user only provides a mid-price or better order instruction, the user’s price constraint is the mid-price. If a user provides a fixed limit price for an order, the price constraint of the order is as follows:

- ***Buy order.*** Lower of the limit price of the order and the mid-price
- ***Sell order.*** Higher of the limit price of the order and the mid-price.

The price constraint of an order can vary over time based on changes in the mid-price.

### **Section 1.12 Definition of “within” a price**

For purposes of these trading rules, the phrase “within” a price includes “at” that price.

### **Section 1.13 High-touch and low-touch orders**

A high-touch order is an order that requires an action by a Liquidnet trader before Liquidnet can commence trading of the order.

A low-touch order is an order where the customer designates an algo and the algo order can be traded by Liquidnet upon receipt without any action by a Liquidnet trader. Low-touch orders can include algo orders created through the Liquidnet desktop application and Liquidnet algos selected and routed from the customer’s OMS desktop, including Liquidnet Only.

### **Section 1.14 Liquidnet Member website (Liquidnet Docs)**

For additional information, Members and customers can refer to the information on the password-protected Member and customer area of the Liquidnet website, also referred to as the Member website. Liquidnet identifies the Member website as “Liquidnet Docs”.

Members and customers can access the Member website (Liquidnet Docs) in any of the following ways:

- By link from Liquidnet’s public website ([www.liquidnet.com](http://www.liquidnet.com)) by clicking Equities under Member/customer login and entering a user name and password
- By navigating to [my.liquidnet.com](http://my.liquidnet.com) and entering a user name and password
- Through Liquidnet 5.

Liquidnet Docs is part of My Liquidnet. Members also can access Liquidnet’s commission management software through My Liquidnet.

Members and customers also can contact any member of their Sales coverage team or any Liquidnet Member Services representative for additional information.

## **Part II. Indications**

### **Section 2.01 Indications**

Members interact with Liquidnet by transmitting indications to the Liquidnet broker in the Member's region. Indications are non-binding, which means that a further affirmative action must be taken by the trader before an executed trade can occur.

### **Section 2.02 OMS interface**

#### ***OMS requirement***

Every Member that provides indications to Liquidnet must have an OMS with which Liquidnet can interface. An OMS is software that a Member uses to manage its order flow.

#### ***OMS integration adapter***

When a trader logs on to Liquidnet, the Liquidnet integration adapter electronically transmits to Liquidnet orders from the Member's OMS assigned to that trader. After the trader has logged on, the Liquidnet integration adapter periodically queries the Member's OMS and updates Liquidnet with changes from the OMS relating to the trader's orders.

#### ***OMS limit orders***

Liquidnet may filter or make ineligible for trading indications of liquidity where the related OMS order has a limit instruction that is outside the market. If the OMS limit price for a buy order is below the best bid price in the applicable market, or the OMS limit price for a sell order is above the best ask price in the applicable market, it is considered "outside the market."

#### ***Additional information***

The method of integration with a Member, including whether an OMS integration adapter is provided, can vary based on the Member's OMS and workflow. Members can obtain additional information regarding specific OMS interfaces by contacting Liquidnet Member Services.

### **Section 2.03 Instrument types**

#### ***Instrument types***

Liquidnet maps indications received from a Member to a Liquidnet instrument type. The Liquidnet instrument type determines the country where any resulting execution will clear and settle.

| <b>Liquidnet Instrument Type</b> | <b>Exchange/market where equity is listed/admitted for trading</b> | <b>Settlement Currency</b> | <b>Settlement Country</b> |
|----------------------------------|--|----------------------------|---------------------------|
|----------------------------------|--|----------------------------|---------------------------|

|     |   |  |        |
|-----|---|--|--------|
| CAE | Toronto Stock Exchange; TSX<br>Venture Exchange | Canadian dollars<br>(or US dollars<br>where the<br>exchange symbol<br>is .U) | Canada |
|-----|---|--|--------|

### ***Ticker Button Symbols***

The symbol displayed on a ticker button is derived from the symbol that is displayed to the trader in the trader's OMS.

### **Section 2.04 Indication quantities**

#### ***OMS order quantity and available quantity***

“OMS order quantity” is the quantity specified in the Member's OMS for a particular OMS order. “Available quantity” is the quantity specified in the Member's OMS for a particular OMS order, less the quantity previously executed or placed at other trading venues, as specified in the Member's OMS.

OMS order quantity and available quantity are determined by the Member's OMS. A trader cannot change these quantities in Liquidnet except by changing the quantities in his OMS.

#### ***Working quantity***

“Working quantity” for an indication received by Liquidnet defaults to the available quantity for that indication, but a trader can manually change his working quantity with Liquidnet to less than (but not more than) the available quantity. A trader's working quantity sets the maximum quantity he or she can execute in a negotiation or through a Liquidnet algo, LN auto-ex or automate negotiation order. A trader can change his or her working quantity for an indication at any time prior to a negotiation.

## **Part III. Liquidnet algo orders**

### **Section 3.01 Creation of algo orders by participants**

#### ***Members***

Members can create algo orders through the Liquidnet desktop application. A trader at a Liquidnet Member or customer firm can create a Liquidnet algo order by designating all or a portion of an indication as a Liquidnet algo order. A trader can designate a Liquidnet algo order whether or not the trader has received notification of a match on the associated indication.

#### ***Customers***

Trading desk customers and Canada broker blocks participants can create algo orders through their OMS.

IIROC-registered brokers can enter committed orders on behalf of their customers (agency orders only), via FIX, using compliant order-entry technology. These brokers, referred to as Canada broker blocks participants, are considered direct participants in the Liquidnet Canada ATS. Their orders are referred to as “Canada broker block orders”. These brokers do not have access to the Liquidnet desktop application. The order quantity from a Canada broker blocks participant must be greater than 50 standard trading units. In handling a Canada broker block order, Liquidnet Canada creates a Liquidnet algo order. Members and eligible customers elect through Liquidnet Transparency Controls whether or not to interact with agency order flow from Canada broker blocks participants.

#### ***Liquidnet trading desk personnel***

Liquidnet trading desk personnel can create algo orders when handling trading desk customer orders, subject to the customer’s instructions. Liquidnet trading desk personnel have access to the Liquidnet algo orders described below; they also have access to algos licensed from third party algo providers and can route orders directly to specific third-party execution venues.

### **Section 3.02 Liquidnet Only algo orders**

Members, customers and Liquidnet trading desk personnel can select among various Liquidnet algo types, as set forth below. If a user selects a “Liquidnet Only” algo, the order can access the Liquidnet negotiation system and Liquidnet H2O but will not access external venues. If the user selects an algo type that is not “Liquidnet Only”, the order can access the Liquidnet negotiation system, Liquidnet H2O and external venues. While Liquidnet Only orders do not route to external venues, Liquidnet refers to them as algo orders because they are created by participants in the same manner as Liquidnet algo orders that can route to external venues. For an order routed to an external venue, execution is subject to the rules of the external venue to which the order is routed.

### Section 3.03 Direct to Desk orders

Liquidnet Members can use the Liquidnet desktop application to transmit orders to the Liquidnet trading desk by selecting Direct to Desk. Liquidnet also can provide the Direct to Desk option to customers through their OMS. When a Member or customer creates a Direct to Desk order, the Member or customer will provide instructions to the Liquidnet trading desk relating to the handling of the order.

### Section 3.04 Firm and conditional algo orders

#### *Types of conditionality*

Algo orders can interact with the Liquidnet negotiation and H2O systems on a firm or conditional basis. Conditional functionality can be incorporated into Liquidnet's algo order functionality.

#### *Conditional functionality incorporated into Liquidnet's algo functionality*

For certain types of algos, as described in Section 3.11 below, Liquidnet interacts with the negotiation and H2O systems on a conditional basis. This type of conditional functionality does not require a firm-up request from the Member or customer. Instead, the Liquidnet algo, which could be working shares at an external venue, must firm-up the order to the negotiation and H2O system, as applicable, immediately prior to execution.

### Section 3.05 Not-held orders

Liquidnet handles all algo orders on a not held basis, unless otherwise expressly instructed by the Member or customer. This means that Liquidnet is not held to seek immediate execution of the order but instead uses its judgment to seek best execution of the order consistent with the Member's or customer's instructions. In these trading rules, a limit order refers to a not held order where the Member or customer specifies a maximum purchase or minimum sale price; a market order refers to a not held order where the Member or customer does not specify a maximum purchase or minimum sale price.

### Section 3.06 Liquidnet algos for Canadian equities

At present, Liquidnet makes generally available the following suite of algos for trading Canadian equities:

| Region | Liquidity Seeking Algos |                |               |                 | Benchmark Algos (aka Basic Algos) |      |     |    |       | Portfolio Trading Algos |
|--------|-------------------------|----------------|---------------|-----------------|-----------------------------------|------|-----|----|-------|-------------------------|
|        | Liquidnet Only          | Liquidnet Dark | Barracuda     | Sweep Then Post | VWAP                              | TWAP | POV | IS | CLOSE | PT                      |
| CANADA | Available               | Available      | Not available | Not available   | Available                         |      |     |    |       | Not available           |

Liquidnet plans to introduce the Barracuda and Sweep then Post algos for Canadian equities based on the following schedule:

- Initial stage: on or after January 30, 2017
- Pilot stage: on or after February 13, 2017
- Full roll-out: on or after March 10, 2017.

Members and customers should contact their Liquidnet coverage and Liquidnet's ASG personnel for more detail regarding the specific algos that are available in each region. Direct to Desk functionality is not considered an algo type and is available for all regions.

### **Section 3.07 Roll-out process for new algos and significant algo changes**

The roll-out process for new algos and significant algo changes typically involves three stages:

- **Initial stage.** During the initial stage, the algo changes are made available only to Liquidnet trading desk personnel.
- **Pilot stage.** During the pilot stage, the algo changes are made available to specific Members and customers. As a general matter, priority is given to Members and customers that are current active users of the applicable algo or that have indicated an intention to use the applicable algo. Where a Member or customer requires customization of an algo that would require time for Liquidnet and the Member or customer to implement, that Member or customer might not be included in the pilot stage.
- **Full roll-out.** At this stage, the algo changes are made available to all Members and customers, subject to technical implementation.

It is Liquidnet's policy to provide Members and customers advance notice of the initial and full roll-out stages of a new algo type and to provide participating Members and customers with notice of the pilot stage. The algo types are: Liquidity Seeking Algos; Benchmark Algos; and Portfolio Trading Algos. Liquidnet also will update on a periodic basis when new algos became available within a particular algo type in a particular region during a preceding period.

### **Section 3.08 Algo order parameters**

A parameter for an order means an election relating to an order that a Member can make through the desktop application. A configuration means an election that Liquidnet Product Support personnel can implement at the request of a Member.

The following parameters are available for Liquidnet algos, depending upon the Liquidnet algo type:

- Strategy
- Algo target quantity
- Algo limit price

- Participation level (where applicable)
- Urgency (where applicable)
- I Would price (where applicable)
- Start and end time
- Participation in opening and closing auction (where applicable)
- Post types
- Venue types
- Minimum quantity

The following additional parameters are available for the portion of a Liquidnet algo that interacts with the Liquidnet negotiation and H2O systems on a conditional basis:

- Block target quantity
- Block limit price
- Block minimum quantity.

Liquidnet can provide additional algo parameters from time-to-time. Members and customers should contact their Relationship Manager or Liquidnet Member Services for more details regarding algo parameters.

### **Section 3.09 Algo order configurations**

The following configurations are available for Liquidnet algos, depending upon the Liquidnet algo type:

- Minimum execution quantity (applies to first execution on the algo only)
- Recurring minimum execution quantity (applies to all executions on the algo)
- Venues to which an algo can route (where applicable)
- Whether fair value protection is applied
- Whether block mode is applied (see Section 3.11 below)

The following additional configurations are available for the portion of a Liquidnet algo that interacts with the Liquidnet negotiation and H2O systems on a conditional basis:

- Recurring block minimum quantity
- Block venues
  - Whether to interact with either or both of the negotiation and H2O systems

Liquidnet can provide additional algo order configurations from time-to-time. Members and customers should contact their Relationship Manager or Liquidnet Member Services for more details regarding algo order configurations.

A customer can elect on an order-by-order basis whether to interact with LP orders. For buy-side customers, this election is only available if the customer has elected through Liquidnet Transparency Controls to interact with LPs.

### **Section 3.10 Limit price for algo orders; imputed limit price where trader does not set a limit price**

When a Member provides a limit price in its OMS, Liquidnet applies that limit price to an algo order created by the Member. If the Member does not provide a limit price in its OMS, the Member can set a limit price for the associated indication through the Liquidnet desktop application (referred to as a “match limit”). In that case, Liquidnet applies the match limit to the Member’s algo order. A trader can modify a match limit but not an OMS limit when creating an algo order.

A trader can elect one of the following defaults for the scenario where a trader does not have an OMS limit or a match limit:

- Apply the default imputed limit price described below
- Override the default imputed limit price constraint and set an alternative imputed limit, as described below
- Set no imputed limit price.

The default imputed limit price restricts a mid-peg proposal from being executed at a price that, in the case of a buy (or sell) order, is more than 35 basis points above (or below) the mid-point of the best bid and offer in the market as of the time that the trader creates the algo order. Members can override the default imputed limit price of 35 basis points for one or more countries and set a different imputed limit price through the Liquidnet desktop application expressed as either of the following:

- Basis points from the mid-point as of the time that the trader creates the algo order; or
- Cents from the best offer in the market (in the case of a buy order) or cents from the best bid in the market (in the case of a sell order) as of the time that the trader creates the algo order.

In all cases, the minimum price increments of the applicable country (or the applicable class of securities within the country) would apply, such that if the limit price above is not equal to a permitted increment, the effective limit price would be:

- In the case of a buy limit price, the lowest permitted price increment above that limit, and
- In the case of a sell limit price, the highest permitted price increment below that limit price.

A trader can modify an imputed limit price on an order-by-order basis, subject to complying with the price increment requirements of the applicable country (or class of securities of the country).

### **Section 3.11 Algo order interaction with the Liquidnet negotiation and H2O systems and external venues**

#### ***Interaction through firm and conditional orders***

Liquidnet manages algo order interactions with the Liquidnet negotiation and H2O systems. Interaction with the negotiation and H2O systems can be on a firm or conditional basis, depending upon the algo selected by the Member or customer, as follows:

- ***Liquidnet Only.*** Liquidnet Only algo orders only interact with the negotiation and H2O systems as firm orders.
- ***All Benchmark algos (except Close).*** These orders interact with the negotiation and H2O systems when the Member or customer sets the Liquidnet I Would functionality with a block target quantity greater than zero. In this scenario, these orders interact with the negotiation and H2O systems as conditional orders. Interaction is based on the block target quantity, block limit and block minimum quantity designated by the Member or customer.
- ***Liquidnet Dark.*** These orders can interact with the negotiation and H2O systems as conditional and as firm orders.

If Liquidnet transmits an algo order to the negotiation and H2O systems on a conditional basis, the algo order can interact with contra-side liquidity in the negotiation and H2O systems, except for contra-side IOC orders in Liquidnet H2O. If Liquidnet transmits the order to the negotiation and H2O systems on a firm basis, the algo order can also interact with contra-side IOC orders in Liquidnet H2O.

#### ***Use of internal and third-party algo and routing technology***

Liquidnet internally develops algorithmic, aggregator and smart order routing technologies to maintain trading schedules and route to external venues and exchanges. Liquidnet also utilizes third-party algorithmic, aggregator and smart order routing technologies to maintain trading schedules and route to exchanges and other venues, including the Liquidnet negotiation and H2O systems. Where Liquidnet utilizes a third-party broker's routing technology, the third-party broker can, consistent with Liquidnet's instructions, route all or a portion of the order back to the Liquidnet negotiation and H2O systems, in which event Liquidnet will, for purposes of these trading rules, treat an order routed in this manner as originating from the underlying Member or customer. This includes applying the underlying Member's or customer's elections through Liquidnet Transparency Controls (relating to interaction with sources of liquidity and use of data) in connection with the order and any resulting execution. We refer to this as "third-party broker routing-back" functionality. Third-party broker routing-back functionality can apply for the following algos: all Benchmark algos (except Close).

In the situation where a Member or customer algo order has both a conditional order and a firm order matching with a contra-side order in Liquidnet H2O, Liquidnet will seek to prioritize the execution that would result in a larger execution.

Members and customers should contact Liquidnet Member Services and ASG personnel for more detail regarding the third-party algorithmic, aggregator and smart order routing technologies used and licensed by Liquidnet.

### ***Taking into account external and Liquidnet executions***

When determining routing logic for current algo orders and evaluating the execution performance of different trading venues, Liquidnet can take into account historical and intra-day executions of other Liquidnet algo orders in the Liquidnet negotiation and H2O systems and at external venues.

### ***Combining conditional order functionality with a third-party broker's algo selected by the Member***

Members can combine conditional order functionality with a third-party broker's algo, as selected by the Member. With this functionality, the third-party algo can work an order in external venues while at the same time resting the order in the Liquidnet negotiation and H2O systems on a conditional basis. Members can separately configure the quantity and limit price of the portion of the order resting in Liquidnet.

### ***Access by Liquidnet algo orders to a subset of information that would be available to a manual contra (block mode)***

Liquidnet algo orders (including conditional orders) for Members and customers may receive notification in real-time of a subset of information regarding matched contras that would be available to a trader at a Member firm using the Liquidnet desktop application. These notifications include: matching with a passive contra; matching with an active contra; commencement of a negotiation with a contra; end of a negotiation with a contra; and breaking of a match with a contra.

Liquidnet's algos can utilize this information in making decisions relating to the routing of the Member's or customer's algo order to the Liquidnet execution venues and external venues. The objective in providing these notifications is to increase the opportunity for an algo order to achieve a block execution with a contra in a Liquidnet execution venue. This functionality is sometimes referred to as "block mode." Block mode is available for the Liquidnet Dark and IS algo for Canadian equities. Block mode also is and will become available for the Barracuda algo for Canadian equities as and when the Barracuda algo becomes available for that market.

### **Section 3.12 Slicing**

Through the Liquidnet desktop application, a trader can designate different algo types for different portions of the same indication.

### **Section 3.13 Algo order automatically created upon negotiated execution**

#### ***Conditions***

Upon request of a Member, Liquidnet will configure the System to automatically create an algo order upon behalf of the Member where all of the following conditions occur:

- A trader at the Member firm executes a trade through manual negotiation, as described in Part VI
- The trader's negotiation quantity at the time of execution is higher than the negotiated execution quantity by at least a round lot for the applicable market
- The negotiated execution quantity meets the following minimum size requirement to trigger this functionality for Canadian equities: 10K shares or 10% of ADV
- The Member does not, at the time, have a desktop algo order with the same symbol and side.

### ***Automatic creation of algo order***

If an execution occurs that meets the conditions set forth in the preceding sub-section, and a Member has elected this configuration, the System will terminate the negotiation and automatically create an algo order on behalf of the Member with a time-in-force of one minute. Liquidnet may change the time-in-force from time-to-time within a range of 30 seconds and two (2) minutes, subject to posting notification on the Member website; based on these changes, the time-in-force may vary based on instrument type.

The limit price for the order is the negotiated execution price, except that in the case of a mid-price negotiated execution where the execution price is not a permitted limit price in the applicable jurisdiction, the system will round the limit price to the next lower (in the case of a buy order) or higher (in the case of a sell order) permitted limit price for that jurisdiction.

The quantity for the order is the lower of the following amounts:

- The amount by which the trader's negotiation quantity at the time of execution exceeds the negotiated execution quantity
- A default maximum order quantity for the applicable instrument type (in shares or principal value) configured by Liquidnet at the Member's request.

### ***Available by instrument type***

A Member can elect to enable this functionality for one or more instrument types.

### ***Ability to edit or cancel***

The Liquidnet desktop notifies the user when an algo order has been created as described in this Section 3.13. A user can edit or cancel the algo order in the same manner as any other desktop algo order.

### ***Available on a pilot basis***

Liquidnet intends to introduce this functionality on a pilot basis for Canadian equities. During the pilot, Liquidnet may limit the number of participants to allow for assessment and potential

modification of the new functionality. After the pilot, Liquidnet intends to make the functionality available to all participants for Canadian equities.

## **Part IV. LN auto-ex orders**

### **Section 4.01 Creation of LN auto-ex orders by Members**

Members can create LN auto-ex orders through the Liquidnet desktop application. A trader at a Liquidnet Member firm can create an LN auto-ex order by designating all or a portion of an indication as an LN auto-ex order. A trader can designate an LN auto-ex order whether or not the trader has received notification of a match on the associated indication.

### **Section 4.02 Execution venues**

#### *Execution venues*

LN auto-ex orders can access the Liquidnet negotiation system and Liquidnet H2O but cannot access external venues (except for clean-up quantity, as described below).

#### *Clean-up quantity*

For certain instrument types, a Member can elect a clean-up quantity on an order-by-order basis. If the remaining quantity of an order is at or below the designated clean-up quantity, Liquidnet can route the order to a third-party execution venue.

### **Section 4.03 Firm and conditional LN auto-ex orders**

LN auto-ex orders can be conditional or firm, as directed by the Member. The creation of a conditional LN auto-ex order does not generate a placement in the Member's OMS immediately upon order creation, and instead generates a placement either when the LN auto-ex order is matched with a contra or prior to execution, as directed by the Member. The creation of a firm LN auto-ex order generates a placement in the Member's OMS immediately upon order creation.

Prior to executing a conditional order, Liquidnet sends a request to the Member's system to commit the shares on the order, and the Member's system responds by sending all or a portion of its remaining unexecuted shares to Liquidnet (known as a "firm-up"). This firm-up request is used to protect the Member against over-execution. Member firm-up rates are periodically reviewed by Liquidnet Sales personnel, with appropriate follow-up to the Member to address any issues.

### **Section 4.04 Parameters for LN auto-ex orders**

The following parameters are available for LN auto-ex orders:

- Quantity
- Limit price
- Cancel condition: match break, cancel timer (order duration) or cancel time
- Minimum execution quantity

- Whether minimum execution quantity applies to all executions on the auto-ex order or only the first execution
- Whether or not to interact with LPs
- Clean-up quantity.

#### **Section 4.05 Configurations for LN auto-ex orders**

The following configurations apply for LN auto-ex orders:

- Whether to interact on a firm or conditional basis
- Clean-up quantity.

## **Part V. Automate negotiation orders**

### **Section 5.01 Creation of automate negotiation orders by Members**

Members can create automate negotiation orders through the Liquidnet desktop application. A trader at a Liquidnet Member firm can create an automate negotiation order by designating all or a portion of an indication as an automate negotiation order. A trader can only create an automate negotiation order when the trader has received notification of a match on the associated indication.

### **Section 5.02 Availability and execution venues**

#### ***Availability***

Automate negotiation order functionality is available for all regions.

#### ***Execution venues***

Automate negotiation orders can access the Liquidnet negotiation system and Liquidnet H2O but cannot access external venues, except that, for US and Canadian equities and most EMEA equities, if there is an odd-lot remaining on an automate negotiation order, Liquidnet automatically cancels the automate negotiation order and generates an 'implementation shortfall' algo order. A Member can request that a different algo type be used for handling these odd-lot residuals.

#### ***Interacting with LP liquidity***

Automate negotiation orders do not interact with LP orders.

#### ***Firm orders***

Automate negotiation orders must be firm.

### **Section 5.03 Parameters for automate negotiation orders**

The following parameters are available for automate negotiation orders:

- Quantity
- Limit price
- Minimum execution quantity (if previously configured by the Member).

### **Section 5.04 Configurations for automate negotiation orders**

The following configurations apply for automate negotiation orders:

- Match break condition; or cancel timer (order duration)

- Whether minimum execution quantity applies to all executions on the automate negotiation order or only the first execution.

#### **Section 5.05 Minimum quantity for automate negotiation orders**

When a trader creates an automate negotiation order, the system will not execute the automate negotiation order against a contra order if the size of the contra order is below the minimum quantity of the automate negotiation order. Minimum quantity for an automate negotiation order is determined in the same manner as match tolerance for a manual negotiation.

A trader using Liquidnet 5.4 or higher can elect to include a field in the trader's desktop application that allows the trader to adjust his or her minimum quantity for an automate negotiation order prior to creating the automate negotiation order. The minimum quantity cannot be less than Liquidnet's minimum execution size for the applicable symbol and cannot be greater than the trader's match tolerance at the time the match commenced. This field can default to either of the following quantities as requested by a Member: Liquidnet's minimum execution size for the applicable symbol (available upon initial release); or the trader's match tolerance at the time the match commenced (to be made available in a subsequent release).

#### **Section 5.06 Notification of negotiation status**

The desktop application notifies a trader using automate negotiation functionality of the status of any ensuing negotiation with the contra in a similar manner as a manually negotiating trader.

## **Part VI. Negotiation functionality**

### **Section 6.01 ATS**

Negotiation functionality for Canadian equities is provided through the Liquidnet Canada ATS.

### **Section 6.02 Indication matching functionality**

#### ***Election to participate***

Members can elect whether or not to participate in Liquidnet's negotiation functionality. If a Member elects to participate, Liquidnet the broker transmits indications received from the Member to Liquidnet's indication matching engine.

#### ***Contras***

When a trader has an indication in Liquidnet that is transmitted to Liquidnet's indication matching engine, and there is at least one other trader with a matching indication on the opposite side (a "contra-party" or "contra"), Liquidnet notifies the first trader and any contra. A matching indication (or "match") is one that is in the same equity and instrument type and where both the trader and the contra are within each other's minimum tolerance quantities (see Section 4.03 below). Members cannot be matched with opposite side orders having the same Member ID.

#### ***Setting indications of liquidity to outside***

A trader may set an indication to "outside," which makes the indication ineligible for Liquidnet's indication matching engine. Indications that are eligible for Liquidnet's indication matching engine are considered "in the pool."

Upon request, Liquidnet can configure a Member's indications to be automatically set to outside if the Member does not take an action on a match of the indication within a specified period of time after commencement of the match, as directed by the Member. Liquidnet now implements this configuration with an exception where the Member previously executed with one or more of the contras on the indication.

#### ***Price alerts***

When a trader sets an indication to outside, the trader can set a price alert. The alert notifies the trader when the price set for the indication is back in the market.

#### ***Matches***

Liquidnet determines matches based on the security IDs provided by each Member. Liquidnet only matches buy and sell indications for a security if they are of the same instrument type.

#### ***Matching indications with OMS limits***

At present, during regular trading hours in the applicable market, indications with OMS limits are eligible for matching where the limit on a buy indication is at or above the applicable reference price and the limit on a sell indication is at or below the applicable reference price. The default reference price is the mid-price, but Members can request that Liquidnet set the reference price as the bid (in the case of a buy indication) and the offer (in the case of a sell indication). Liquidnet allows matching of indications pre-open or at market open for Canadian equities based on the following reference prices in the applicable stock:

- If there is a valid best bid and best offer in the market, the applicable reference price for the Member, as described above (mid-price, bid or offer, as applicable)
- If a valid best bid and best offer is not available, last sale price
- If a valid best bid and best offer and last sale price are not available, most recent closing price.

### ***Match pop-ups***

In addition to a standard match notification, the System provides a larger alert to the trader on each side upon commencement of a match (also referred to as a “match pop-up”). A trader can close a match pop-up at any time. A trader also can request that Liquidnet disable all match pop-ups for the trader. Through sales dashboard, an RM can request the refresh of a match pop-up, which has the following effect: (i) if the trader has previously closed the pop-up for that match, the System will send another match pop-up to the trader; and (ii) if the trader has not previously closed the pop-up and the pop-up is no longer visible to the trader because it is hidden behind another screen on the trader’s desktop, the System will attempt to make the pop-up visible to the trader.

## **Section 6.03 Minimum quantity for matching and negotiation (tolerance)**

### ***Minimum match quantity***

Liquidnet does not match two contra-side indications unless each indication meets the following minimum quantity requirement: least of 5,000 shares, 5% of ADV and CAD\$100,000.

The minimum quantity for matching of an indication does not apply to a continuing negotiation with the same contra after a partial execution of the indication with that contra. The minimum quantity for matching is in addition to the current tolerance conditions that Liquidnet applies. For purposes of this Section 6.03, “ADV” means the average daily trading volume in the stock for the 30 prior trading days.

### ***Tolerance***

A trader is matched with a contra only if the working quantity of each trader is at or above the other trader’s minimum tolerance quantity (or “tolerance”). A trader’s tolerance on an indication represents the minimum working quantity in shares that a contra must have for the trader to be matched against that contra. Tolerance is intended to protect a trader from being matched and

negotiating with a contra whose working quantity is too small.

A trader's tolerance on an indication equals the lowest of the following three quantities:

- ***Working quantity tolerance.*** The trader's working quantity on the indication multiplied by the trader's working quantity tolerance percentage.
- ***ADV tolerance percentage.*** The ADV of the stock multiplied by the trader's ADV tolerance percentage.
- ***Default maximum tolerance.*** The default maximum tolerance for the applicable region, as described below.

### ***Working quantity and ADV tolerance percentages***

The system sets separate default working quantity and ADV tolerance percentages of 10% for each trader. Through the Liquidnet desktop application, a trader can adjust his or her default working quantity tolerance percentage or default ADV tolerance percentage, or each of them, to a different percentage, ranging from 1% to 25%. The default tolerance percentages apply to all of a trader's indications, unless the trader overrides the defaults for a specific indication (as described below).

A trader can also request that Liquidnet disable ADV tolerance, in which case ADV tolerance would not apply to the trader's indications.

### ***Maximum tolerance***

Liquidnet defaults each Member's maximum tolerance for Canadian equities to 50,000 shares.

Members have the following options with respect to maximum tolerance:

- For each country, a Member can determine whether a maximum tolerance should be applied.
- If a Member determines that a maximum tolerance should be applied for a country, the Member can choose to keep the default maximum tolerance set by Liquidnet, or the Member can choose to increase or decrease the maximum tolerance.
- If the Member wants to change the default maximum tolerance for a country, the Member can choose to set the maximum tolerance based on number of shares or based on principal value.

A Member should contact its Sales coverage or Member Services for a list of its maximum tolerances, if any, for each country, and to request any modifications, or to request that a maximum tolerance be enabled or disabled. Maximum tolerances are set at the Member level.

### ***Adjusting tolerance for an indication***

A trader can adjust his or her tolerance for an indication through the Liquidnet desktop application by taking any of the following actions for the indication:

- Adjusting the tolerance share number
- Adjusting the tolerance principal value
- Adjusting the working quantity tolerance percentage
- Adjusting the ADV tolerance percentage.

If the trader adjusts any of these parameters, the system will use that parameter as the trader's tolerance, except that the tolerance cannot exceed 25% of the trader's working quantity on the indication or 25% of ADV (unless the trader has disabled ADV tolerance for all indications). If a trader adjusts a parameter and the adjustment does not cause the trader's adjusted tolerance value to exceed 25% of working quantity (and 25% of ADV, where applicable), and a subsequent execution or other event causes the adjusted tolerance value to exceed 25% of the trader's working quantity, the system will compute the trader's tolerance based on his working quantity (and, where applicable ADV) tolerance percentages that were in place prior to the tolerance adjustment.

### *Examples of how tolerance works*

The following scenarios illustrate how the rules above apply for an indication.

#### **Scenario 1**

- Member A has set a working quantity percentage of 10% and an ADV percentage of 10%.
- Trader A works for Member A and does not override the percentages set by his firm.
- Trader A has an indication for 800,000 shares in a US equity.
- The ADV in the stock is 700,000 shares.
- Member A has instructed Liquidnet not to apply a maximum tolerance for US equities.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 70,000 shares:
  - Working quantity (800,000 shares) x working quantity percentage (10%) = 80,000 shares
  - ADV (700,000 shares) x ADV percentage (10%) = 70,000 shares
  - Lesser of working quantity tolerance (80,000 shares) and ADV tolerance (70,000 shares) = 70,000 shares.

#### **Scenario 2**

- Same as Scenario 1, except that Member A applies the default maximum tolerance for US equities, which is 50,000 shares.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 50,000 shares:
  - Working quantity (800,000 shares) x working quantity percentage (10%) = 80,000 shares
  - ADV (700,000 shares) x ADV percentage (10%) = 70,000 shares
  - Maximum tolerance of 50,000 shares

- Least of working quantity tolerance (80,000 shares), ADV tolerance (70,000 shares) and maximum tolerance (50,000 shares) = 50,000 shares.

### Scenario 3

- Same as Scenario 1, except that Trader A has disabled ADV tolerance through the Liquidnet desktop application.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 80,000 shares:
  - Working quantity (800,000 shares) x working quantity percentage (10%) = 80,000 shares
  - ADV tolerance – not applicable
  - Maximum tolerance – not applicable.

### Scenario 4

- Same as Scenario 2, except that Trader A uses the desktop application to decrease his share tolerance from 50,000 to 30,000 shares.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 30,000 shares. Trader A's change overrides the other tolerance parameters.

### Scenario 5

- Same as Scenario 2, except that Trader A uses the desktop application to increase his share tolerance from 50,000 to 200,000 shares.
- **Result:** The system will only allow Trader A to increase his tolerance to 175,000 shares.
  - Working quantity (800,000 shares) x maximum working quantity percentage (25%) = 200,000 shares
  - ADV tolerance (700,000 shares) x maximum ADV tolerance percentage (25%) = 175,000 shares
  - Maximum tolerance – overridden.
  - Lesser of working quantity tolerance (200,000 shares) and ADV tolerance (175,000 shares) = 175,000 shares.

#### *Minimum match quantity requirement*

In all cases, a match only occurs if each side meets the minimum match quantity requirement for the applicable region, as described above.

#### *Adjusting tolerance during a match*

A trader can decrease, but cannot increase, his or her tolerance during a match.

#### *Tolerance after an initial trade is executed*

After an initial trade is executed on an indication, if the trader has any residual amount left to trade on that indication, tolerance for the indication will vary depending on which of the following three configurations are implemented for the Member:

- A zero tolerance will apply for all contras
- A zero tolerance will apply for the contra-firm with which the trader executed, but the trader's original tolerance settings will apply to all other contras
- The trader's original tolerance settings will continue to apply to all contras, including the contra-firm with which the trader executed.

A Member can change this configuration at any time upon notice to Liquidnet.

#### **Section 6.04 Matching on placed orders**

Member firms that meet certain criteria may be configured to match with other Liquidnet contras based on a quantity that includes shares already placed at other trading venues. Liquidnet monitors Members with this configuration for usage in alignment with Member community protocols.

Liquidnet supports two different implementations for matching on placed orders. Both implementations require a manual action by the trader at the Member firm. One implementation requires the Member firm to manually update the OMS to free up shares placed at the other trading venues before submitting a bid or offer in a Liquidnet negotiation. The second implementation allows a Member to enter a Liquidnet negotiation for shares placed at other trading venues. After an execution, the Member must free up the shares in the OMS.

Members that are configured to match on placed orders can set filters so they do not match when they have executed a specified percentage of the parent OMS order away from Liquidnet that day and the remaining quantity on the order is below a specified percentage of the 30-day historical ADV for the stock.

#### **Section 6.05 Active, passive and outside status**

##### ***Active and passive status***

An indication that is in the pool can have a status of passive or active. Unless otherwise configured for a trader, all indications have an initial default status of passive. A trader can indicate that he is ready to receive an invitation to negotiate by changing the status of his indication from passive to active. This is also known as "going active." The indication that is made active is known as an "active indication." The active status is displayed to the contras on a match. Going active is not a binding bid or offer.

##### ***Active by default***

Traders have the option of making indications active by default by contacting Liquidnet Product Support.

### ***Manually changing status from outside***

A trader can manually change the status of an indication from outside to active, but not from outside to passive.

### ***Carrying over status to the next trading day***

Liquidnet makes available to Members a configuration where the status of the Member's indications (active, passive or outside) are carried over to the next trading day.

### ***Defaulting indications to outside***

Liquidnet makes available to Members various configuration rules that default specific types of indications to outside. These rules can include, for example, defaulting to outside: indications with market-on-open instructions; indications with market-on-close instructions; or indications that are part of a portfolio or program list.

## **Section 6.06 Ordering of contras**

Liquidnet lists active contras based on time priority (when the contra went active), except that the contra that represents the LNC (see Section 6.10) is listed above other contras. By default, a Member's invitation is sent to the contra that is listed first, but a Member can override this default by selecting a different contra prior to sending an invitation.

The ordering rules in the preceding paragraph are subject to the exception set forth in this paragraph. If a mid-peg invitation sent by a trader (Trader 1) is above the tolerance of a contra (Trader 2) and missed or declined by Trader 2 (or expires), (i) Trader 1 will be the only contra displayed to Trader 2 as active for a period of 30 seconds (and, thus, the only contra to whom Trader 2 can send an invitation during that period), and (ii) a trader at another Member firm will not see Trader 2 as active during this 30-second period (and, thus, cannot submit a proposal to Trader 2 during this 30-second period). The 30-second period is reduced to 10 seconds when Trader 2 declined the invitation from Trader 1 and specified the reason as "Explicit Price Only."

## **Section 6.07 Functionality to automatically convert un-matched indications from active to passive under certain circumstances after set time period**

At present, Liquidnet defaults each Member's active indications to convert to passive in either of the following circumstances:

- 180 seconds after a match breaks
- 180 seconds after a Member makes an un-matched indication active, providing that indication remains un-matched.

Members can override these default configurations upon notice to Liquidnet.

Members can choose to be configured to convert active indications to passive if the mid-point increases (or decreases) by 35 basis points or more from the time that a Member went active on a buy (or sell) indication.

## **Section 6.08 Negotiations**

### ***Starting a negotiation; sending an invitation***

When Liquidnet notifies a trader of one or more active contras for a security, the trader can start a negotiation for that security by selecting a contra, specifying a price and negotiation quantity, and submitting a bid or offer. This is also known as “sending an invitation.” When a trader sends an invitation in response to an active indication, he is making a firm bid or offer. A trader can only send an invitation on any match to one contra at a time. If a trader sends an invitation when the status of his or her indication is passive, the status of the trader’s indication is converted to active. A trader can only send an invitation to a contra that is active.

### ***Negotiation quantity***

“Negotiation quantity” is the quantity set by a trader when he makes a bid, offer, counter-bid or counter-offer or agreed to by a trader when he accepts a bid, offer, counter-bid or counter-offer. A trader’s negotiation quantity defaults to his working quantity at the start of a negotiation, but the trader can modify his negotiation quantity before submitting a bid, offer, counter-bid, or counter-offer.

### ***Bids and offers (proposals)***

Liquidnet negotiations are anonymous one-to-one negotiations through which traders submit bids and offers to each other. The first bid or offer in a negotiation is submitted when one trader opens the negotiation room and sends an invitation. Subsequent bids and offers may be submitted as counter-bids or counter-offers in the negotiation. “Bids and offers” are sometimes referred to as “proposals”. An invitation is a type of proposal.

A trader (or a group of traders, as described below) may only enter into a negotiation with respect to a specific indication with one contra at a time.

Prices specified in proposals are limit prices. Proposals in Liquidnet negotiations are firm orders.

Prior to starting a negotiation, submitting a proposal, or taking any other action in a negotiation, a trader should confirm that the price and quantity and other information relating to that action accurately reflect the trader’s and the Member’s intended action. In particular, the trader should confirm that the proposal price is within any limit price set by the Member and within any price and quantity limits set in the Member’s OMS. Traders should be aware that Liquidnet does not update available quantity or working quantity for changes in OMS order quantity once a negotiation has commenced.

### ***Priced, mid-peg and closing price proposals***

There are three types of negotiation proposals: priced, mid-peg and closing price. A priced proposal has an associated price displayed to the contra and can only be executed at the indicated price. A mid-peg proposal does not have an associated price. A mid-peg proposal, if accepted, is executed at the mid-price at the time of execution. A closing price proposal, if accepted, is executed at the closing price for the stock. The closing price for a stock is determined by reference to the applicable market data feed sourced by Liquidnet, as described in Section 11.03 below. A closing price proposal cannot be executed if the execution price is more than 1.5% away from the mid-point as of the time of execution. Closing price proposals for Canadian equities are subject to the additional condition that a closing price proposal cannot be executed if the closing price is outside the national best bid and offer as of the time of execution.

Prior to the open of trading, and during the regular trading session in the primary market, only priced and mid-peg proposals can be submitted during a negotiation. For Canadian equities, after the close of the regular trading session in the primary market, only closing price proposals can be submitted.

### ***Responding to an invitation***

When a trader sends an invitation, the contra may open the negotiation room or decline to negotiate. Upon opening the negotiation room in response to an invitation, the contra may do any of the following:

- Accept the invitation
- Change quantity and accept
- Submit a counter-proposal
- Allow the proposal to expire by not responding within the configured time period (currently 20 or 30 seconds, as applicable)
- End the negotiation.

However, a contra cannot submit a counter-proposal in response to a mid-peg invitation.

Liquidnet has implemented functionality where a trader can accept a mid-peg invitation without first opening the negotiation room. This functionality is not implemented where inconsistent with a trader's workflow or where a trader requests that this functionality not be implemented.

On a pilot basis, certain users of Liquidnet 5.3 also have the ability to accept a priced invitation without first opening the negotiation room.

### ***Chat***

Traders can also send messages to each other during a negotiation via the chat feature. A chat message does not constitute a proposal, acceptance, cancellation or similar event. A trader cannot send a chat message along with or in response to a mid-peg proposal.

### ***Providing reason for a decline***

When declining a proposal (including a mid-peg proposal), a trader must specify a decline reason. Liquidnet provides default reasons; traders can modify the list of default reasons through the settings area of the desktop application.

### ***Canceling a proposal***

After a trader submits a proposal, he can cancel that proposal by either:

- Clicking cancel, to cancel the proposal; or
- Clicking end, to terminate the negotiation (in this situation, we encourage the trader to send a chat notice to the contra).

If a trader cancels a proposal, he can resubmit another proposal.

### ***Counter-proposals***

A trader can submit a counter-proposal in response to a priced invitation or other priced proposal by specifying a negotiation quantity and price (or mid-peg) and submitting. If a trader submits a counter-proposal, the trader receiving the counter-proposal has the same options as above upon receipt of an invitation.

### ***Ending a negotiation***

If a trader ends a negotiation, it terminates the current negotiation.

### ***Time limit***

There is a 30-second time limit for invitations and a 20-second time limit for all subsequent proposals in a negotiation. If an invitation is not accepted by the contra within 30 seconds, the invitation expires. If a subsequent proposal in a negotiation is not accepted by the contra with 20 seconds, the proposal expires.

Either trader can submit a proposal in a negotiation after one of the traders has failed to respond to a proposal within the applicable time limit. After a time expiration, if the two traders submit a proposal at the same price and within each other's tolerances, and prior to either trader receiving the other trader's proposal, the second proposal received by the Liquidnet back-end software will be treated as an accept.

The timer for any proposal starts when the Liquidnet back-end software confirms that the contra has received the proposal. Any acceptance, to be effective, must be received by the Liquidnet back-end software prior to the expiration of its 30-second (or 20-second) clock.

### ***Proposals significantly away from the best bid and best ask***

Liquidnet allows traders to trade outside the current best bid and best ask (subject to certain price restrictions required by law as described below), but Liquidnet may require a trader who submits a proposal that is significantly outside the current best bid and best ask to specifically confirm the proposal.

### ***Minimum tolerance quantities during negotiations***

A trader specifies a negotiation quantity each time he submits a proposal. A trader cannot submit a negotiation quantity that is below the trader's own minimum tolerance for the associated indication.

If the negotiation quantity submitted by a trader is below the contra's minimum tolerance quantity, Liquidnet notifies the contra that the proposal is below his tolerance. The contra then has the same options as he would have in response to any other proposal.

A trader's tolerance during a negotiation is the product of his working quantity and tolerance percentage. For example, if a trader has a working quantity of 100,000 shares and a tolerance percentage of 20%, his tolerance for the negotiation is 20,000 shares.

A trader can change his working quantity for an indication prior to a negotiation. When a negotiation starts, the working quantity is no longer updated upon a change in the OMS. A trader cannot change his available quantity for an indication.

### ***Crossed proposals***

If a trader submits a bid during a negotiation that is higher than the contra's offer, or submits an offer during a negotiation that is lower than the contra's bid, Liquidnet will treat this bid or offer as a counter-proposal.

### ***Acceptances***

A trader can accept a contra's proposal by clicking accept. A trader also can accept a proposal by submitting the same price as the price of the contra's proposal (as long as the trader's negotiation quantity is within the contra's tolerance).

### ***Accepts after changing quantity***

If a trader accepts after changing his negotiation quantity, it is treated as an accept if the trader's negotiation quantity is still above the contra's tolerance, but is treated as a counter-proposal if the trader's negotiation quantity is below the contra's tolerance.

### ***Imputed price constraint for accept of mid-peg proposal***

When a trader accepts a mid-peg proposal:

- If the accepting trader is a buyer, Liquidnet imputes a price constraint of 30 basis points above the mid displayed to the trader when the trader clicks accept
- If the accepting trader is a seller, Liquidnet imputes a price constraint of 30 basis points below the mid displayed to the trader when the trader clicks accept.

***Limit price for mid-peg proposal sent during a negotiation; imputed limit price where trader does not set a limit price***

When a Member provides a limit price in its OMS, Liquidnet applies that limit price to a mid-peg proposal sent by the Member during a negotiation. If the Member does not provide a limit price in its OMS, the Member can set a limit price for the associated indication through the Liquidnet desktop application (referred to as a “match limit”). In that case, Liquidnet applies the match limit to a mid-peg proposal sent by the Member during a negotiation. A trader can modify a match limit but not an OMS limit during a negotiation.

If the Member does not set an OMS limit or a match limit for an indication, Liquidnet imputes a limit price (as described in this sub-section) for execution of a mid-peg proposal. The constraints described in the preceding sub-section apply to the accepting trader; the imputed limit price described in this sub-section applies to the trader who submits a mid-peg proposal for acceptance by the contra where Liquidnet has not received an OMS limit price from the trader’s OMS or a match limit.

This default limit price restricts a mid-peg proposal from being executed at a price that, in the case of a buy (or sell) proposal, is more than 35 basis points above (or below) the mid-point of the best bid and offer in the market as of the time that the submitter opened the negotiation room. Members can override the default limit price of 35 basis points for one or more countries and set a different limit price through the Liquidnet desktop application expressed as either of the following:

- Basis points from the mid-point as of the time that the submitter opened the negotiation room; or
- Cents from the best offer in the market (in the case of a buy order) or cents from the best bid in the market (in the case of a sell order) as of the time that the submitter opened the negotiation room.

In all cases, the minimum price increments of the applicable country (or the applicable class of securities within the country) would apply, such that if the imputed limit price above is not equal to a permitted increment, the imputed limit price would be adjusted to the following:

- In the case of a buy limit price, the lowest permitted price increment above that limit price, and
- In the case of a sell limit price, the highest permitted price increment below that price constraint.

A trader can modify a default limit price on an order-by-order basis, subject to complying with the price increment requirements of the applicable country (or class of securities of the country).

### ***Priority and effectiveness of acceptances, cancellations, expirations and other negotiation events***

The effectiveness of an acceptance, cancellation, or end request depends upon which event is first received by the Liquidnet back-end software and recorded in the Liquidnet database. Accordingly, a cancellation or end request is effective over an acceptance if the Liquidnet back-end software receives and records in the Liquidnet database the cancellation or end request prior to the receipt and recording of the acceptance; conversely, an acceptance is effective over a cancellation or end request if the Liquidnet back-end software receives and records in the Liquidnet database the acceptance prior to the receipt and recording of the cancellation or end request. An effective acceptance received and recorded as set forth above constitutes an executed trade in Liquidnet.

All proposals, cancels, modifications, counter-proposals, and acceptances are deemed effective when they are received and recorded by the Liquidnet back-end software, and are not effective until such time.

### ***Execution quantity***

When an acceptance is effective in accordance with the preceding section, a trade is executed for the lesser of the two parties' negotiation quantities, except that all negotiations are subject to a minimum execution quantity equal to the minimum match quantity set forth in Section 6.03 above. However, in the case of a continuing negotiation after a partial execution, the minimum execution quantity for negotiations will be the lesser of (i) the minimum execution quantity set forth in Section 6.03, and (ii) the remaining unexecuted quantity of the side with the lower remaining unexecuted quantity. In all cases, an execution cannot be less than the minimum execution size as mandated by any regulation for the applicable jurisdiction (see, for example, Section 8.02).

### ***Confirming messages***

When a trader submits a proposal or other instruction during the negotiation process, the trader should receive a message in the negotiation room dialog box confirming the trader's instruction. The trader should contact Liquidnet Member Services promptly if he fails to receive a prompt confirming message or if the trader has a question about the confirming message.

Members and traders should contact Liquidnet Member Services promptly if they believe an error, failure or delay in transmission or receipt of a proposal, acceptance, confirmation or other negotiation event has occurred. Liquidnet Member Services will promptly respond to the Member or trader.

A trader should not exit the negotiation room after an accept until the effectiveness of the acceptance has been confirmed back to the trader in the negotiation room dialog box.

### ***Groups of traders***

A Member, through its OMS, assigns orders to individual traders. In the Liquidnet System, the Member can request that traders be designated in a group. If a trader is designated in a group, the trader can negotiate trades for indications of another trader in the group. However, at any time, only one trader within a group can negotiate with respect to an OMS order that has been transmitted to Liquidnet as an indication. In a group situation, traders should coordinate with other traders in the group.

### ***Closing price proposals***

After the close of the regular session of trading in the primary market of the applicable country, the only type of proposal that can be submitted during a negotiation is a closing price proposal. The implementation of closing price proposals for Canadian equities is subject to prior approval by the Canadian regulators. Liquidnet will notify Members and customers prior to closing price proposals becoming effective for Canadian equities.

### ***Trading on close in Canadian equities***

For Canadian equities, when the regular trading session of the listed market (TSX or TSXV) has closed, Liquidnet terminates all open negotiations by setting the matching indications to the Outside status. Traders wishing to recommence the negotiation may do so, but they must manually set their indications to passive or active again.

### ***Continuing negotiations***

After a trade is executed, the participants can continue to negotiate and execute trades with respect to the same security as long as they each have a remaining working quantity, even if one trader's remaining quantity is below the contra's minimum tolerance quantity.

In a continuing negotiation, either party can submit a proposal.

In a continuing negotiation, the negotiation quantity for each trader defaults to the lesser of the trader's negotiation quantity at the time of execution and the trader's current working quantity.

In a continuing negotiation, if the two traders submit proposals at the same price and within each other's tolerances, and prior to either trader receiving the other trader's proposal, the second proposal received by the Liquidnet back-end software will be treated as an accept.

### ***Long name and other security information displayed in negotiation room***

During a negotiation, Liquidnet posts the "long name" for the security in the negotiation room. The long name is provided by Reuters. Liquidnet also displays in the negotiation room the applicable exchange and currency for the security that is being negotiated. For example, "TSX" refers to the Toronto Stock Exchange and "CAD" refers to Canadian dollars. The purpose of displaying this information is to identify the security that is being negotiated and the settlement country and currency. When entering a negotiation, a trader should confirm that the long name,

applicable exchange and currency are accurate; the trader should contact Liquidnet Member Services if he has any questions about the security that is being negotiated or the long name description, market, or currency that is displayed before proceeding with the negotiation.

### **Section 6.09 Non-block Canadian orders restricted to mid-peg**

In compliance with IROC rules, a negotiation order for Canadian equities that is 50 standard trading units or less and has a value of CAD\$100,000 or less is only permitted if it is a mid-peg order. The Liquidnet trader software automatically restricts non-block entry to mid-peg.

### **Section 6.10 Auto-negotiations**

#### ***Background on auto-negotiations and the LNC***

A Liquidnet algo, LN auto-ex or automate negotiation order can transmit all or a portion of the order as an indication eligible for matching through the Liquidnet indication matching engine. When such a match occurs, the indication associated with the Liquidnet algo, LN auto-ex or automate negotiation order is represented as an active indication to the contra trader with an indication (sometime referred to as the “manual contra”).

In this situation, the Liquidnet software can negotiate on behalf of the trader with the Liquidnet algo, LN auto-ex or automate negotiation order. The feature of the negotiation functionality that performs this negotiation is referred to as the “Liquidnet negotiation contra” or “LNC”. The functionality is referred to as “auto-negotiation”.

Consistent with Liquidnet’s negotiation functionality, a manual contra can only negotiate with one contra on a match; the contra to the manual contra could be another manual negotiator or the LNC, negotiating on behalf of one or more traders that have created Liquidnet algo, LN auto-ex or automate negotiation orders.

The LNC only can negotiate with one manual contra at any time with respect to any match.

Prior to the LNC commencing or entering into an auto-negotiation, the related Liquidnet algo, LN auto-ex or automate negotiation order is canceled from Liquidnet H2O. The Liquidnet algo, LN auto-ex or automate negotiation order can be resumed in Liquidnet H2O upon termination of the auto-negotiation.

The LNC will only execute in accordance with the price constraint instructions of the trader who created the Liquidnet algo, LN auto-ex or automate negotiation order.

#### ***LNC or manual contra can commence a negotiation***

A negotiation can be commenced by the LNC (if the manual contra is active) or by the manual contra.

#### ***Negotiation commenced by the LNC***

If the manual contra is active, the LNC can send a mid-peg proposal to the manual contra. In response, the manual contra has the same options as it does upon receipt of a mid-peg proposal from another manual contra (as described in Section 6.08 above on negotiations).

### ***Negotiation commenced by the manual contra***

The manual contra can send an invitation to the LNC, either as a mid-peg proposal or a priced proposal.

- If the manual contra sends a mid-peg proposal, the LNC can enter into the negotiation room and accept on behalf of the trader who created the Liquidnet algo, LN auto-ex or automate negotiation order (subject to the execution price being within the price constraints of the manual contra and the LNC).
- If the manual contra sends a priced proposal:
  - If the proposal is at or better than the mid (from the perspective of the LNC), the LNC can enter into the negotiation room and accept on behalf of the trader who created the Liquidnet algo, LN auto-ex or automate negotiation order.
  - If the proposal is worse than the mid (from the perspective of the LNC), the LNC can enter into the negotiation room and respond to the manual contra with a mid-peg proposal. In response to the LNC's mid-peg proposal, the manual contra has the same options as it does upon receipt of a mid-peg proposal from another manual contra (as described in Section 6.08 above on negotiations).

### ***Prioritization where the LNC represents multiple contras***

Where the LNC represents multiple contras, Liquidnet executes the two (or more) same-side orders equally (for each order, up to its quantity), except that execution amounts are rounded up or down to the closest higher or lower round lot amounts to avoid an odd-lot execution.

### ***Automate negotiation instruction***

Members notified of a match can provide an automate negotiation instruction. With this instruction, which represents a firm order, the LNC can negotiate on behalf of the Member. In addition, the Member's order can interact in Liquidnet H2O against other Member and customer orders but not against orders from LPs. A Member providing an automate negotiation instruction can designate an expiration time or condition through the Liquidnet desktop application. Please refer to Part V for additional detail.

### ***Additional detail on auto-negotiation; ability of RMs to reset the auto-negotiation functionality***

When a Member or customer creates a Liquidnet algo, LN auto-ex or automate negotiation order, depending on the order type and parameters, all or a portion of the order can be submitted to match for potential negotiation with a manually negotiating contra. If the manual contra is active, the Liquidnet system can send an invite to the manual contra and automatically negotiate on behalf of the Member or customer that created the Liquidnet algo, LN auto-ex or automate negotiation order. Liquidnet will send an invite in an attempt to engage the manual contra. In certain scenarios, after a failed attempt, the system will stop sending invites to the manual contra. Failed attempts could result from the manual contra declining or missing the invite or the limit on the Liquidnet algo, LN auto-ex or automate negotiation order going out of market before the manual contra responds to the invite. A Member can request a configuration whereby the Member would continue to receive invites until the Member declines the invite or exits the negotiation.

Through Sales Dashboard, an RM can reset the auto-negotiation functionality, which results in the Liquidnet system sending an additional invite to the manual contra, provided that the manual contra is still active, the Liquidnet algo, LN auto-ex or automate negotiation order is still within the parameters (limit and quantity) to send an invite, and one of the following sets of conditions has occurred:

- The LNC and the manual contra are matched, both sides are active, and there was a partial execution between the two sides more than 30 seconds prior
- The LNC and the manual contra are matched, both sides are active, the RM is aware that the manual contra was off the desk earlier, and the RM subsequently becomes aware that the manual contra has returned to the desk
- The LNC and the manual contra are matched, both sides are active, a previous negotiation failed because the mid-price moved away from the manual contra's limit, and the price has now moved back within the manual contra's limit
- The LNC and the manual contra are matched, both sides are active, and a technical issue arose that prevented the negotiation from completing.

An RM has no ability to modify the parameters of the Liquidnet algo, LN auto-ex or automate negotiation order.

### ***Priority for manual contra in interacting with Liquidnet algo and LN auto-ex orders***

If a Member or customer creates a Liquidnet algo or LN auto-ex order, and a manual contra has a matching indication against that Liquidnet algo or LN auto-ex order, the manual contra will have 10 seconds to initiate a negotiation with the Liquidnet algo or LN auto-ex order before the Liquidnet algo or LN auto-ex order can execute against LP liquidity. After the 10-second period, the manual contra can continue to interact with the Liquidnet algo or LN auto-ex order, but the Liquidnet algo or LN auto-ex order also can interact with other liquidity.

## **Part VII. Liquidnet H2O execution functionality**

### **Section 7.01 Liquidnet Canada ATS**

Liquidnet H2O execution functionality for Canadian equities, as described in this Part VII, is provided through the Liquidnet Canada ATS.

### **Section 7.02 Liquidnet algo, LN auto-ex and automate negotiation orders; LP IOC orders**

Liquidnet H2O involves two types of orders:

- Liquidnet algo orders created by Members, customers, or the Liquidnet trading desk and LN auto-ex and automate negotiation orders created by Members
- LP IOC orders transmitted by liquidity partners (LPs).

Liquidnet H2O handles all auto-executions described in this Part VII.

### **Section 7.03 Execution price**

All executions in Liquidnet H2O are executed at the mid-price.

### **Section 7.04 Execution, cancellation and editing of Liquidnet algo and LN auto-ex orders in Liquidnet H2O**

A Liquidnet algo or LN auto-ex order in Liquidnet H2O can only execute against another Liquidnet algo or LN auto-ex order or against an LP IOC order. An automate negotiation order in Liquidnet H2O can only execute against another Liquidnet algo or LN auto-ex order.

A Liquidnet algo, LN auto-ex or automate negotiation order only executes in Liquidnet H2O if the execution price is within the price constraints of the Liquidnet algo, LN auto-ex or automate negotiation order and the contra's Liquidnet algo, LN auto-ex, automate negotiation or LP order.

Liquidnet H2O only executes Liquidnet algo, LN auto-ex and automate negotiation orders in round lots.

The quantity of any execution is the lesser of the quantity of the Liquidnet algo, LN auto-ex or automate negotiation order and the quantity of the opposite-side Liquidnet algo, LN auto-ex, automate negotiation or LP order (but rounded down to the highest round lot).

A trader can request cancellation (or edit) of a Liquidnet algo, LN auto-ex or automate negotiation order in Liquidnet H2O. Cancellation (or edit) is effective upon receipt and processing by Liquidnet's back-end software except to the extent Liquidnet's back-end software has previously processed an execution.

All Liquidnet algo, LN auto-ex and automate negotiation orders in Liquidnet H2O are resting orders and are automatically cancelled at the close of trading of the regular session of the applicable exchange. Traders should monitor open orders during the trading day and request cancellations (or edits) as appropriate.

Liquidnet H2O can execute an order in a stock when the primary market in the applicable country has opened.

### **Section 7.05 Liquidity partners; LP IOC orders**

LPs do not have access to the Liquidnet desktop application. Accordingly, they are not able to view any Liquidnet indications, nor are they able to participate in any negotiations. They can participate in Liquidnet functionality only as set forth in this Part VII.

LPs have the ability to transmit IOC orders to Liquidnet H2O (referred to as “LP IOC orders”).

For each LP IOC order, the LP must specify the security, side (buy or sell) and quantity.

An LP also can specify the limit price of an LP IOC order. If no limit price is specified for an LP IOC order (i.e., a market order), Liquidnet H2O imputes the following limit price:

- Current best bid (in the case of a streaming sell order)
- Current best ask (in the case of a streaming buy order).

LP IOC orders are not displayed. LP IOC orders are all IOC (immediate or cancel).

### **Section 7.06 Execution of LP orders**

#### ***Contras to an LP order***

An LP IOC order can only execute against a Liquidnet algo or LN auto-ex order in Liquidnet H2O.

#### ***Execution price***

An LP order executes at the mid-price, but execution only occurs if the execution price is within the price constraints of the LP order and the contra’s order.

#### ***Execution quantity***

Liquidnet only executes LP orders in round lots.

The quantity of any execution is the lesser of the quantity of the matching buy and sell orders (rounded down to the highest round lot).

### **Section 7.07 Multiple same-side orders**

If Liquidnet H2O receives two (or more) same-side resting orders in the same security available for execution, and Liquidnet H2O then receives a contra-order, Liquidnet H2O will execute the two (or more) same-side orders equally (for each order, up to its quantity), except that execution amounts will be rounded up or down to the closest higher or lower round lot amounts to avoid an odd-lot execution.

### **Section 7.08 Liquidnet back-end software for H2O execution functionality**

An execution or cancellation of a Liquidnet algo order or LP IOC order is deemed effective when it is received, processed and recorded by the Liquidnet back-end software, and is not effective until such time. The effectiveness of an execution or cancellation depends upon which event is first received, processed and recorded by the Liquidnet back-end software.

### **Section 7.09 Interaction of negotiation and H2O execution functionality**

Shares cannot be involved in a negotiation and included in a Liquidnet algo order at the same time. If a trader commences a negotiation of shares that are included in a Liquidnet algo order, the shares in the Liquidnet algo order are cancelled prior to the trader's commencement of the negotiation.

### **Section 7.10 Condition for LP orders**

For Canadian equities, LPs can send agency but not principal orders to Liquidnet H2O. LPs can send customer orders to Liquidnet H2O, including orders of customers of their affiliates. LPs that are exchanges also can route to Liquidnet H2O orders they have received from other markets.

### **Section 7.11 Blocking interaction with LPs**

#### ***General***

Members and customers only interact with IOC orders from LPs when they affirmatively create a Liquidnet algo or LN auto-ex order. Liquidnet maintains a current list of LPs and provides it to Members and customers upon request.

Members and customers elect through Liquidnet Transparency Controls whether to interact with IOC orders from LPs. A Member or customer that elects to interact with IOC orders from LPs can elect to block interaction with certain LPs, as described in Section 1.07 above.

#### ***Canadian equities – blocking interaction with specific LPs***

For Canadian equities, a Member or customer can only block interaction with a specific LP if the Member or customer is affiliated with the LP, and restricted from trading with the LP for a legal, regulatory or compliance reason.

***Canadian equities – blocking interaction with LPs on an order-by-order basis***

When creating a Liquidnet algo or LN auto-ex order for Canadian equities, a Member or customer can select on an order-by-order basis whether or not to interact with LPs.

**Part VIII. Price restrictions; permitted price and quantity increments; short sale and other order and execution-related provisions**

**Section 8.01 Price restrictions**

The following table identifies price restrictions on the Liquidnet Canada ATS.

| <b>Jurisdiction</b> | <b>Price restrictions</b>  |
|---------------------|--|
| Canada              | <p>In accordance with National Instrument 23-101, for Canadian equities, the Liquidnet system is reasonably designed to prevent executions outside the highest displayed bid and lowest displayed ask in the market at the time of execution.</p> <p>A negotiation order for Canadian equities that is 50 standard trading units or less and has a value of CAD\$100,000 or less is only permitted if it is a mid-peg order.</p> |

**Section 8.02 Permitted price and quantity increments**

The following table identifies the permitted price and quantity increments for the Liquidnet Canada ATS:

| <b>Jurisdiction</b> | <b>Permitted price increments</b> | <b>Permitted quantity increments</b>      |
|---------------------|-----------------------------------|---|
| Canada              | Up to 3 decimals                  | Round lots only (multiples of 100 shares) |

Liquidnet may need to round an OMS limit price up or down to conform to the permitted price increment in the relevant jurisdiction. When a Member has a buy indication, Liquidnet rounds the Member's limit price down to the closest permitted price increment; when a Member has a sell indication, Liquidnet rounds the Member's limit price up to the closest permitted price increment.

**Section 8.03 Short sales**

Members and customers must comply with all legal restrictions on short sales applicable to them, including any restrictions on short sales in specific equities for which the applicable regulator has imposed short sale restrictions (referred to as "affected securities") and any disclosure obligations relating to short sale positions imposed by applicable regulators.

Members and customers are permitted to execute short sales in Canadian equities through Liquidnet. By submitting a short sale offer during a negotiation, creating a Liquidnet algo, LN auto-ex or automate negotiation order or transmitting an order to the trading desk, the trader confirms to Liquidnet that the trader has made arrangements prior to the entry of the order to borrow the securities that would be required to settle the trade. For traders using the desktop application, a notice will appear to confirm that delivery can be made within three business days.

If the trader is not able to make this confirmation, the trader will not be able proceed with the negotiation or Liquidnet algo, LN auto-ex or automate negotiation order.

***Members must identify short sales in their OMS***

Members and customers must identify short sales of Canadian equities in their OMS to enable compliance with the short sale requirements described above in this section and for recordkeeping purposes.

**Section 8.04 Locked and crossed markets**

Liquidnet will not execute an order for an equity if the market in that equity is crossed (i.e., the best posted bid is higher than the best posted offer). If the market in an equity is locked (i.e., the best posted bid is equal to the best posted offer), Liquidnet can execute the order if at least one side of the trade is participating in a manual negotiation or has created an automate negotiation order.

**Section 8.05 Restriction on Canadian Members and customers trading inter-listed equities in non-Canadian markets**

Canadian Members and customers are not permitted to trade inter-listed Canadian equities in Liquidnet's non-Canadian markets, except where the non-Canadian market is a "foreign organized regulated market", as defined under IIROC rules, and the regular trading hours of the primary exchange of the non-Canadian market do not overlap with the regular trading hours of the Canadian marketplace.

Canadian Members and customers in their use of Liquidnet algos may receive executions of Canadian inter-listed equities in the US only when Liquidnet's third-party SOR supports the routing of orders for inter-listed securities. For greater clarity, the SOR's inter-listed functionality must review both Canadian and US market quotes, apply a CAD foreign exchange conversion rate to the US market quote, and then route the order to the best market available. The inter-listed SOR will only route to the US market if its quote plus CAD foreign exchange conversion rate is better than the CBBO at the time the decision is made to send the order to the US market. Liquidnet algos will not execute Canadian inter-listed securities in any market other than the US and Canada.

Canadian Members and customers can trade inter-listed equities in Canada in Canadian dollars.

**Section 8.06 Marketplace thresholds for Canadian equities**

Pursuant to IIROC Rules Notice 15-0186, Liquidnet has implemented marketplace thresholds for the trading of Canadian equities. Any match that would violate the price movement thresholds set against reference prices defined by IIROC (NLSP and One-Minute Reference Price, as described below) will be rejected, and an error message will be provided to the affected parties explaining that the trade was rejected for failure to comply with IIROC marketplace thresholds.

Additional details concerning the implementation of marketplace thresholds for the trading of Canadian equities are available on the Liquidnet website.

For the purposes of determining a price increase or decline, a marketplace must compare each order of a security to be traded on the marketplace to two reference prices:

- The national last sale price of that security on that particular trading day (NLSP); and
- The national last sale price of that security that occurred on the most recent minute interval (One-Minute Reference Price).
  - For example: at 10:00:00 the One-Minute Reference Price would be the value of the NLSP at 10:00:00 and remains constant for one minute until it is updated at the next minute increment at 10:01:00. The value of the One-Minute Reference Price at 10:01:08 is the value of the One-Minute Reference Price that was established at 10:01:00 and does not change, regardless of any orders that are executed, until it is reset at 10:02:00 to the value of the NLSP at 10:02:00.

**Part IX. Additional services – trading desk; execution consulting services; transaction cost analysis; Liquidnet Capital Markets; commission management; analytics; fixed income trading services**

**Section 9.01 Liquidnet trading desk services**

***Trading capacity***

Liquidnet’s global trading desk is agency-only, except in the case of a test trade or an error or accommodation, as described in Section 11.09 below.

***Liquidnet Canada trading desk***

Liquidnet Canada operates an electronic agency-only trading desk for trading Canadian equities. The Liquidnet Canada trading desk is based in New York, but is operated from Toronto during days when the Canadian markets are open and the US markets are closed. In handling an order, the Liquidnet Canada trading desk can create a Liquidnet algo order to access external venues and the Liquidnet Canada ATS. Canadian trading desk personnel also have access to third-party algos. A customer can provide the Liquidnet Canada trading desk with specific instructions for handling an order, including whether to access the Liquidnet ATS.

***Residual executions***

Trading desk services include executing the residual portion of an order that was executed in part through a Liquidnet execution venue. If Liquidnet executes an order in a Liquidnet execution venue and in an external venue, Liquidnet will provide the trader with a weighted average price for the executions in the Liquidnet execution venues and the external execution venues.

***Cross-border trading desk customer orders***

If a trading desk customer located in a specific region transmits an order for an equity in another region, Liquidnet’s systems record that order as being routed by the Liquidnet entity in the customer’s region to the Liquidnet entity responsible for execution. The entity located in the customer’s region is considered the routing broker; the entity responsible for execution is considered the executing broker. For example, if a customer located in Hong Kong transmits an order for a US equity, Liquidnet’s systems record the order as being routed by Liquidnet Asia Limited (the routing broker) to Liquidnet, Inc. (the executing broker).

**Section 9.02 Execution consulting services; transaction cost analysis**

Liquidnet’s Algorithmic Services Group (ASG) and quantitative analytics personnel are responsible for providing execution consulting services to Members and customers with a focus on Liquidnet’s algorithmic offering. These groups also are responsible for providing various transaction cost analysis (TCA) reports for Members and customers and for various internal products. Liquidnet’s ASG and quantitative analytics personnel are available to discuss execution results with Members and customers, and they can generate and provide customized

TCA reports to Members and customers. Members and customers should contact their Relationship Manager for additional information on this service.

### **Section 9.03 Liquidnet Capital Markets; Liquidnet IP**

#### ***Liquidnet Capital Markets***

The Liquidnet Capital Markets (LCM) team works with public and private issuers and stockholders of these issuers, as well as with Members and customers that seek to transact with public and private issuers and their stockholders. LCM makes public issuer liquidity for US equities available to US, EMEA and Canadian Members and customers. Subject to prior notice from Liquidnet, for Canadian equities, Members and customers may also interact with liquidity from LCM customers who are private equity or venture capital firms. All such transactions are facilitated through the Liquidnet Canada trading desk. For Canadian equities, the LCM team is approved to handle private issuer, but not public issuer, transactions.

#### ***Reverse inquiry***

Liquidnet has introduced reverse inquiry functionality on a pilot basis. With this functionality, LCM personnel can enter information into the System regarding existing ATMs and buy-backs that have been announced by issuers and publicly-disclosed holdings of VC and PE firms and control persons (the LCM data).

When a Member has an indication in a security that matches with the LCM data, the System can notify the Member. Notification is subject to the satisfaction of certain minimum quantity requirements and is only provided where there is no indication in the System that is contra to the Member's indication.

Upon receipt of a notification, the Member, either directly or through the Member's RM, can instruct Liquidnet's LCM team to contact the issuer or public stockholder, as applicable, on behalf of the Member. This is referred to as a reverse inquiry. The Member's identity is not revealed to the issuer or to LCM personnel, unless expressly agreed to by the Member. After being contacted by LCM personnel, the issuer or public stockholder can transmit an order to Liquidnet's LCM team.

Upon request, Liquidnet can configure a Member to not receive reverse inquiry notifications.

#### ***Private Issuer Transactions***

LCM handles private issuer transactions for the US, Canada, Israel and certain EMEA countries. LCM personnel are responsible for building direct relationships with private companies to assist the companies and their stockholders in finding liquidity. In the case of sales by selling stockholders, the private companies can aggregate the stock from permitted selling stockholders for sale to institutional investors. LCM personnel present these investment opportunities to Liquidnet Members and customers that might be interested in these opportunities.

## **Section 9.04 Commission management**

### ***Commission sharing***

Liquidnet offers a commission sharing program that allows Members and customers trading any global equities to use commission credits to pay for permissible services. Permissible services include services in Canada that comply with National Instrument 23-102. To participate in the program, a Member or customer must contact Liquidnet to set up a commission sharing account. A Member or customer can add pennies or basis points to Liquidnet's standard commission rate for credit to this account (add-on credit amounts). For the US and Canada, a Member or customer also can receive a credit to this account based on a percentage of commissions as agreed between Liquidnet and the Member or customer (discount credit amounts). Members and customers can then direct Liquidnet to pay vendors from this account for permissible services. Liquidnet will not pay an invoice until it has been approved by the Member or customer. A Member or customer should not forward any invoice to Liquidnet, or have a vendor forward an invoice to Liquidnet, unless the Member or customer has confirmed that the invoice is for a permissible service.

Liquidnet reserves the right to reject an invoice, including for the following reasons:

- Liquidnet believes that the invoiced service is not a permissible service
- Liquidnet and the Member or customer are unable to work out a mutually satisfactory process for implementation of the program, including approval of invoices
- The vendor requests Liquidnet to sign an agreement on terms that are not acceptable to Liquidnet.

No separate agreement is required to participate in Liquidnet's commission sharing program for Canadian equities.

If a Member or customer becomes insolvent or otherwise terminates the operation of its business, Liquidnet will contact the Member or customer regarding the disposition of its CSA credits. If the Member or customer does not advise Liquidnet regarding the disposition of such credits within six months after terminating the operation of its business, (i) Liquidnet will handle any add-on credit amounts pursuant to escheat laws and (ii) cancel any discount credit amounts, with such discount credit amounts being returned to Liquidnet.

### ***Third-party providers***

As an alternative to Liquidnet's commission sharing programs described above, a Member or customer in Canada can add-on to Liquidnet's standard commission rate for payment to a third-party (such as Westminster Research) that administers a soft dollar program for the Member or customer. The third-party administrator must be approved by Liquidnet. A Member or customer also can allocate for payment to the third-party a percentage of commissions as agreed between Liquidnet and the Member or customer. Liquidnet provides, or confirms that the third-party administrator provides, each of these Members and customers with certain disclosures regarding these referral arrangements as required by Sections 6.11 to 6.15 of National Instrument 31-103.

These disclosures include all relevant fees and conflicts of interests and are provided prior to the Member or customer commencing participating in the program.

### ***Commission aggregation service***

Liquidnet provides a service to Members and customers where Liquidnet can administer payments to research and other permissible service providers for executions at Liquidnet and at third-party brokers. As part of the commission aggregation service, Liquidnet provides software that Members and customers use to monitor their research credits and payments to Liquidnet and third-party brokers. For Member and customers that participate in this service, Liquidnet receives trade information from the Member or customer and other brokers regarding executions that occur away from Liquidnet.

### ***Commission analyzer service***

Liquidnet provides software that Members and customers can use to analyze their commissions incurred, and payments made, broken out by broker. Members and customers also can view commission targets set for each broker and progress towards meeting those targets.

### ***Broker vote service***

Liquidnet has introduced on a pilot basis software that Members and customers can use to vote on providers of eligible services. These votes determine payment targets to various providers, as displayed through the commission analyzer software.

### ***Additional detail***

Members and customers can contact their RM for additional detail.

## **Section 9.05 Analytics**

The Liquidnet desktop application provides pre-trade and post-trade analytics to aid in pre-trade decision making and post-trade evaluation. The Liquidnet desktop application also provides alerts of abnormal price movements.

## **Section 9.06 Fixed income trading services**

Liquidnet provides fixed income trading services, as described in the Liquidnet Fixed Income Trading Rules, which are posted on the Liquidnet Member website. Except where otherwise specified, the provisions of these trading rules apply to equity trading, and the provisions of the fixed income trading rules apply to fixed income trading.

All fixed income customers must sign a Participant Agreement or Subscriber Agreement. A fixed income customer can sign a Participant Agreement, which is specific to fixed income trading through Liquidnet. Alternatively, a customer can sign a Subscriber Agreement, which covers all trading through Liquidnet, including equity and fixed income. For these customers, the Liquidnet

trading system referred to in the Subscriber Agreement includes Liquidnet's equity and fixed income trading systems. If a customer has signed both agreements, the Subscriber Agreement applies for equity trading and the Participant Agreement applies for fixed income trading.

## **Part X. Use and disclosure of trading information and associated controls**

### **Section 10.01 Anonymity; segregation of functions; and controls on access to information**

#### ***Anonymity***

Liquidnet maintains complete anonymity of every Member, customer and trader during the entire lifecycle of an indication and order.

#### ***Segregation of functions and controls on access to information***

Liquidnet has established and implemented policies to maintain the segregation of sales (RM), trading desk, Member Services and algorithmic services functions and to control access to information by Liquidnet personnel, as follows:

- ***Relationship Managers (Sales coverage)***
  - ***Sales Dashboard – trading information.*** Sales coverage personnel (also referred to as Relationship Managers or RMs) sit on the sales desk. RMs have access to a support tool called Sales Dashboard (SDB). Through SDB, RMs can view matching indications from Members and contact Members to facilitate negotiations. RMs also can view Members' live and broken match data, negotiation histories, Liquidnet algo, LN auto-ex and automate negotiation orders created by Members through the desktop application, Liquidnet algo orders sent as customer orders to the trading desk, and executed trades. This data is made available to RMs to effectively facilitate negotiations between Members, monitor Liquidnet algo, LN auto-ex and automate negotiation orders, and respond to complaints and diagnose issues. When an RM can view a match through SDB, the RM can view both sides to the match.
  - ***Sales Dashboard – login information.*** Through SDB, RMs can view the following information relating to the traders in the sales region that they cover: whether or not the trader is logged in; the trader's current number of indications in Liquidnet and the shares and principal value represented by those indications; number, shares and principal value of outside and invalid indications; and the trader's historical executed ADV through Liquidnet.
  - ***Access to Sales Dashboard by Sales Region***
    - RMs in Canada have access to SDB information for all Canadian Members; access applies to all equities traded by these Members. RMs in Canada also have access to SDB information for all Members globally trading Canadian equities. RMs in Canada also provide back up to the USI group (see below); in that capacity, they have access to SDB information

for all US Members trading EMEA equities, all Members trading Mexican equities, and USI accounts (see below) trading all equities.

- Liquidnet's USI group, based in the US, covers trading by all US Members in non-US equities as well as trading by all global Members in Mexican equities. In this capacity, RMs in the USI group have access to SDB information for all US Members trading EMEA equities and all global Members trading Mexican equities. USI RMs also have access to SDB information for specific US Members that these RMs cover; access applies to all equities traded by these US Members. The USI group also provides back-up to other regions. In this capacity, RMs in the USI group have access to SDB information for all non-US Members trading US equities and all Members globally trading Canadian and EMEA equities.
- ***Sales and Trading Alerts Tool.*** RMs have access to the Sales and Trading Alerts Tool (STAT), as described in Section 10.03 below.
- ***Member and trader performance and activity through Liquidnet.*** RMs have access to reports on Member and trader performance and activity through Liquidnet, including positive action rates (PAR) and realization rates of individual Members and traders. Positive action means going active on a match, sending an invite to an active contra or creating an algo, LN auto-ex or automate negotiation order. PAR is the percentage of matches where a party takes a positive action. Realization rate is the percentage of matched shares executed by a party. Reports can be broken out by date, country, sector, market cap and similar aggregated categories. Reports do not include symbol information. Reports can include for the relevant period data on matched liquidity, match rate, contra PAR, contra realization rate, trading revenue and percentage of volume traded through algo, LN auto-ex and automate negotiation orders.

Reports also can include data on indications received from a Member by instrument type, including aggregate number of indications, principal value or shares and the time of the most recent indication received from a Member. Reports do not include symbol information. Liquidity data is not broken out between buy and sell liquidity.

These reports can be product-specific. Examples of product-specific information would be the number of proposed orders submitted by a trader or Member to the algo ranking model, the number of targeted invitations sent or received by a Member or trader, the number and size of executions resulting from targeted invitations sent or received by a Member or trader, and response rates on targeted invitations sent or received by a Member.

- ***Scout.*** RMs have access to Scout, a tool used to assist in providing trade recaps and responding to Member inquiries relating to executed trades. Through Scout, RMs have access to all Liquidnet executions.

- **Trading desk customers.** An RM can have access to order and execution information of a trading desk customer if the trading desk customer consents.
- **Trading away alerts.** An RM can receive a report on T+1 identifying when two Members are matched on a stock and there is evidence that one of the Members has executed a trade in the stock away from Liquidnet. The report identifies the symbol, the Members and traders that are party to the match, and the Member that traded away from Liquidnet.
- **Placement alerts.** A Member's Sales coverage is notified through SDB when a placement is generated for the Member upon an active match or commencement of a negotiation.
- **Reverse inquiry support.** RMs have access to certain data to support Liquidnet's reverse inquiry functionality, described above. Specifically, RMs can view in real-time and on a historical basis for each trader in their region the number of reverse inquiry notifications received by the trader and the number of reverse inquiry notifications on which the trader has taken action. A Product person with responsibility for the reverse inquiry product also has access to this information on an end-of-day and historical basis. The data is broken out by trading day. Symbols are disclosed to an RM or Product person only for notifications on which a Member takes action.
- **Salesforce CRM system.** Liquidnet personnel in the following departments have access to the primary version of Liquidnet's Salesforce CRM (customer relationship management) system: Algo Services; Business Intelligence; Compliance; Corporate Leadership; Technology; Execution and Quantitative Services; Finance; Fixed Income; Information Security; Legal; Marketing; Member Services; Product; Sales; Sales Admin; Technology (Business Analysts); and Trading Desk. Liquidnet's CRM system contains standard CRM information relating to Members and customers, including Member and customer contact information, Member and customer actual and target revenue information, Member and customer trading volume information (not symbol-specific), the status of support incidents, and reports on Member and customer meetings and calls. Through Salesforce, Liquidnet personnel can receive alerts relating to Member and customer PAR, realization rate and similar performance metrics; these metrics are not symbol-specific. Only Member Services personnel have access to symbol-specific information in the CRM system. LCM personnel have access to a separate version of Salesforce specifically created for the LCM team containing standard CRM information relating only to LCM customers.
- **Restrictions on RMs.** RMs cannot engage in any trading activity for Members. In particular, they cannot make any decisions regarding the trading of a Member order.

- ***Sales supervisory personnel.*** Personnel with management and supervisory responsibility for RMs have access to the same SDB information available to the RMs they supervise, other than instances where the information available to the RMs is for back-up purposes. Liquidnet's co-heads of US equities have physical access to the Member Services area (described below) to assist in resolving trading issues.
- ***Execution and quantitative services personnel.*** Liquidnet's execution and quantitative services group (EQS) consists of the following groups and functions:
  - Trading desk
  - Algo services group
  - Quantitative analytics
  - Trading strategy
  - Routing services
  - Algo development
  - Commission management services.

Access to data by personnel performing each function is described below. Some of these functions may be combined in certain Liquidnet regions, as described below.

- ***Trading desk personnel***
  - ***Trading desk EMS.*** Trading desk personnel sit on the trading desk in the applicable region. They can trade orders sent to the desk by a customer in accordance with the customer's instructions. Through the EMS used by the trading desk:
    - Trading desk personnel handle, troubleshoot and monitor all high-touch customer orders.
    - Trading desk personnel also can view and monitor all low-touch Member and customer algo orders and provide consultative support to Members and customers in connection with these orders.
  - ***Monitoring tools provided by routing brokers.*** Liquidnet's trading desk personnel have access to monitoring tools that may be provided by brokers that provide routing services for Liquidnet. These monitoring tools assist trading desk personnel in monitoring the routing of orders through the routing broker.
  - ***Scout.*** Through Scout, trading desk personnel can view execution information of Members and customers relating to their trading desk orders. Trading desk personnel can see whether trading desk orders were crossed by Liquidnet in its ATS or executed on an external venue. For trades executed in the Liquidnet Canada ATS, the contra is identified to the Liquidnet trader only if the contra is an LP.

- **Trade Insights TCA tool.** Trading desk personnel have access to order and trade information of trading desk customers through the Trade Insights TCA tool (described below).
- **Restrictions on trading desk personnel.** Trading desk personnel cannot view matching indications.
- **Trading desk supervisory personnel.** Personnel with management and supervisory responsibility for trading desk activity can view Liquidnet trading activity for supervisory purposes.
- **Algorithmic Services Group personnel.** Liquidnet’s Algorithmic Services Group (ASG) is responsible for providing execution consulting services to Members and customers with a focus on Liquidnet’s algorithmic offering. This team also is responsible for providing various TCA reports for Members and customers. The ASG team also monitors the performance of Liquidnet’s algos and recommends modifications, where appropriate, to improve algo performance. In real-time, ASG personnel also can troubleshoot an algo order that is not performing properly; troubleshooting can include modifying the parameters of the algo order.
  - **Trade Insights TCA tool.** Liquidnet’s ASG personnel access the Trade Insights TCA tool to conduct transaction cost analysis for the overall community and on behalf of individual Members and customers. ASG personnel have access to all Member and customer trade information for the purpose of evaluating and communicating the performance of the various Liquidnet algo types on an aggregated basis. In connection with the generation of TCA reports for individual Members or customers, ASG personnel, using Trade Insights, can access order information for equities executed through Liquidnet by the applicable Member or customer. This includes target quantity with respect to algo, LN auto-ex and automate negotiation orders and negotiation quantity (i.e., the quantity submitted during a negotiation) with respect to negotiated orders. Members and customers that do not want ASG personnel to access their order information for the purpose of generating Member and customer-specific TCA reports on their behalf can notify their Liquidnet coverage team.
  - **Liquidnet EMS.** Through Liquidnet’s EMS:
    - ASG personnel in Canada can monitor all low-touch Member and customer algo orders and provide consultative support to Members and customers in connection with these orders.
  - **Monitoring tools provided by routing brokers.** Liquidnet’s ASG personnel have access to monitoring tools that may be provided to AGS personnel by brokers that provide routing services for Liquidnet. These monitoring tools assist ASG personnel in monitoring the routing of orders through the routing broker.

- **Scout.** Through Scout, ASG personnel can view all execution information of Members, customers and LPs to evaluate execution quality for internal purposes and in response to Member requests.
- **Restrictions on ASG personnel.** Liquidnet's ASG personnel cannot engage in trading activities for Members or customers, except that, in real-time, ASG personnel can troubleshoot and modify the parameters of Liquidnet algo orders that are not performing properly. Also, during days when the Canadian markets are open and the US markets are closed, an ASG representative can operate the Liquidnet Canada trading desk from a private access-controlled area in Liquidnet's Toronto office.
- **Quantitative analytics personnel.** Liquidnet's quantitative analytics personnel are responsible for transaction-cost reporting and providing decision-support analytics to Members and customers. Quantitative analytics personnel also conduct quantitative research on market micro-structure and develop models for use by Liquidnet algo development personnel.
  - **Trade Insights TCA tool.** Liquidnet's quantitative analytics personnel access the Trade Insights TCA tool to conduct transaction cost analysis for the overall community and on behalf of individual Members and customers. Quantitative analytics personnel have access to all Member and customer trade information for the purpose of evaluating and communicating the performance of the various Liquidnet algo types on an aggregated basis. In connection with the generation of TCA reports for individual Members or customers, quantitative analytics personnel, using Trade Insights, can access order information for equities executed through Liquidnet by the applicable Member or customer. This includes target quantity with respect to algo, LN auto-ex and automate negotiation orders and negotiation quantity (i.e., the quantity submitted during a negotiation) with respect to negotiated orders. Members and customers that do not want quantitative analytics personnel to access their order information for the purpose of generating Member and customer-specific TCA reports on their behalf can notify their Liquidnet coverage team.
  - **Scout.** Through Scout, Quantitative Analytics personnel can view all execution information of Members, customers and LPs.
  - **Algo ranking model.** In connection with monitoring and improving the algo ranking model, Quantitative Analytics personnel have access on T+1 or after to the relevant details of proposed orders submitted by traders to the algo ranking model, including, symbol, side, quantity, order type and limit price, if applicable.
  - **Model development and research.** Quantitative analytics personnel have access to Liquidnet order and execution data contained in the Liquidnet databases for model development and research.

- **Broken match data.** Through Liquidnet's Cognos reporting tool, quantitative analytics personnel have access to data relating to broken matches. The purpose of this access is to enable quantitative analytics personnel to address Member queries relating to broken matches. For this purpose, matches can consist of matches with contra-indications, matches with contra-orders from Members and customers, and broker block notifications from LPs. Quantitative analytics personnel can access all data relating to broken matches for this purpose, including:
  - Begin match time
  - End match time
  - Symbol
  - Information regarding the Member's indication, including limit price, available quantity and quantity executed, at the begin and end match times
  - Information regarding the contra's indication or order, as applicable, including limit price, available quantity, order quantity, and quantity executed, at the begin and end match times.

A Member's consent is required before quantitative analytics personnel can access this data on behalf of a Member. The consent of contras is not required, but the contras are not identified through this reporting tool.

Quantitative analytics personnel can provide their analysis to the requesting Member with respect to the match to which the Member's query relates (but without providing any contra information) or with respect to the Member's matches in general. The analysis provided to the Member is aggregated and is not on a match or symbol basis.

- **Targeted invitation analysis.** In connection with providing analysis for surveillance monitoring of targeted invitations, Quantitative Analytics personnel can have access on T+21 or after to the relevant details of targeted invitations sent by Members, including, symbol, create time, end time, side and quantity.
- **Routing strategy personnel.** Liquidnet has one employee within EQS with responsibility for managing Liquidnet's relationships with LPs, routing brokers and automated routing customers. This employee has access on T+1 or after to aggregated (non-symbol specific) information on orders transmitted and executed by LPs and automated routing customers over daily and monthly time periods. Data can be broken out by type of order (IOC; resting; and conditional) and LP and customer name. Data for a daily or monthly period can include: number of orders; number of executions; aggregate and average share quantity of orders and executions; executed shares and orders relative to submitted and matched shares and orders; average order duration; and revenue generated from the contra by LP, customer and order type. This employee also reviews various reports for surveillance purposes.

- ***Trading strategy personnel.*** Liquidnet has one employee within EQS with responsibility for providing content to index and quant funds relating to market events globally, including index events, corporate actions (spin-offs, rights issues and extraordinary dividends) and structural market changes. This employee has access to the Trade Insights TCA tool and the Liquidnet EMS for low-touch orders.
- ***Algo development personnel.*** Liquidnet's algo development personnel are responsible for the design and development of Liquidnet's algorithms and algorithm-supporting market analytics. This team has responsibility for the design and development of algorithms that provide best execution for Members and customers in accordance with Member and customer requirements and Liquidnet's regulatory obligations. To facilitate this objective, Liquidnet's algo development personnel have access to algo order information on a real-time basis, including for algo orders created by Members through the desktop application and algo orders transmitted by customers to the trading desk. Algo order information includes the target quantity of the algo order and the transmission of shares on a firm or conditional basis either to a Liquidnet ATS or an external venue. Liquidnet's algo development personnel access this information through the Liquidnet EMS and through other internal real-time reporting tools. Liquidnet's algo development personnel cannot engage in trading activity and cannot modify any parameters of a Liquidnet algo order.
- ***Commission management services personnel.*** Liquidnet's commission management services personnel are part of Liquidnet's EQS and Member Services groups. Liquidnet's commission management services include commission aggregation, commission analyzer and broker vote services. Liquidnet's commission management personnel have access to all Liquidnet trade and allocation information. Liquidnet also receives information about third-party vendors and payment details where a Member or customer directs Liquidnet to pay the vendor for research and brokerage services. For Members and customers that participate in Liquidnet's commission aggregation service, Liquidnet receives trade information from the Member or customer and other brokers regarding executions that occur away from Liquidnet. Commission management personnel also have access to data provided by Members and customers that utilize Liquidnet's commission analyzer and broker vote products. Liquidnet has implemented detailed procedures to control and restrict access to commission aggregation, analyzer and broker vote information. In particular, database access control and network segmentation prevents personnel not involved with the provisioning and support of these services from accessing data provided by Members, customers and brokers in connection with these services.
- ***Sales Analytics Group personnel.*** The Sales Analytics team provides data and reports to internal Liquidnet customers, such as Corporate Leadership, Sales and Marketing, for use in monitoring, developing and enhancing Liquidnet's products and services as well as in support of Liquidnet's sales and marketing efforts. In addition, Sales Analytics personnel provide Members and customers with analysis and reporting that offers Members and customers insight into how they are using Liquidnet's products and services. Sales Analytics personnel have access to indication, order and trade information in the database and through Liquidnet's Cognos reporting tool. Reports, which can include trading information, may only be provided by the Sales Analytics group to employees in other

groups if those employees are authorized, pursuant to Liquidnet's policies, to have access to the associated data. Certain reports provided by Sales Analytics may be provided to external parties, to the extent disclosed pursuant to Liquidnet's Order Handling Q and A document. The Sales Analytics team is part of Liquidnet's Sales group.

- **Member Services personnel.** Member Services personnel have access to Member, customer and LP indication, order and trade information. They are located in a keycard protected area and are on a separate network from other Liquidnet personnel, but certain Product Support and Implementation personnel sit in the sales and trading areas to assist in resolving production and implementation issues. Liquidnet's Member Services Department consists of the following teams: Product Support and Implementation; Trade Services; and Commission Management.
  - **Product Support and Implementation.** Product Support and Implementation personnel assist with implementation of participants, maintain up-time of the system, support connectivity with participants, and assist in resolving technical and functional issues affecting participants in their use of the system. Liquidnet's Product Support personnel have access to indication, order and trade information in the database and through the various Liquidnet support tools to assist in addressing technical and functional issues affecting Members, customers and LPs. Product Support and Implementation personnel also have access to logs from each Member's Liquidnet desktop application and OMS interface with Liquidnet to assist in researching and troubleshooting implementation issues, evaluating additional liquidity from a Member that could be provided to the system, and suggesting technical improvement to a Member's interface.
  - **Trade Services.** Trade Services handles account set-up, trade allocations and trade settlement.
  - **Commission Management.** Commission Management handles Liquidnet's third-party and internal commission sharing programs, and Liquidnet's commission aggregation, commission analyzer and broker vote services (discussed above).
- **LCM personnel.** Liquidnet Capital Markets (LCM) personnel work on public and private issuer transactions.
  - **Public issuer transactions.** The LCM team works with issuers, individual and corporate control persons, private equity firms and venture capital firms to attract secondary offering, corporate repurchase, and control-person transactions for the benefit of our Members and customers. LCM customers do not have access to the Liquidnet desktop application; all listed shares transactions are facilitated through the Liquidnet trading desk.
  - **Reverse inquiry support.** LCM personnel have access to certain data to support Liquidnet's reverse inquiry functionality, described above. Specifically, LCM personnel can view on a weekly basis the number of reverse inquiry notifications

received by Members, aggregated by Sales region, and the number of reverse inquiry notifications on which Members have taken action, aggregated by Sales region. Symbols are disclosed only for notifications on which Members take action. No Member-specific information is included.

- ***Access to data for private issuer transactions.*** LCM personnel have access to a list of global Liquidnet Members and customers. LCM personnel can discuss with Members and customers their interest in investing in private issuers. Based on these discussions, LCM personnel can report to private issuers the number of Members and customers that have indicated to the LCM team that they are interested in investing in private issuers generally, and the number of those with which the LCM team is in active conversation. In addition, based on these discussions and based on publicly available information, LCM personnel can report to an issuer on the number of Members and customers that they believe would be potential purchasers for the issuer's stock. LCM personnel do not provide any Member or customer names or characteristics, or any other non-public information, to an issuer without express prior consent from the Member or customer.

LCM personnel can further provide the following data to private issuers:

- Disclosure regarding aggregate characteristics of the Liquidnet community, as described in Section 10.06 below
  - Aggregate volume of transactions involving private issuers completed by Liquidnet's LCM group (between private issuers and Liquidnet Members or customers)
  - Volume of transactions involving private issuers completed by Liquidnet's LCM group, broken out by sector.
- ***LCM personnel access to trading information.*** LCM personnel do not have access to any Member, customer or LP indication, negotiation, match or order information. LCM personnel can access Liquidnet execution information after T+20 and provide this information to LCM customers. The parties to the trade are not identified to LCM personnel.
  - ***Salesforce CRM system for LCM personnel.*** LCM personnel have access to an instance of Liquidnet's Salesforce CRM (customer relationship management) system specifically created for the LCM team. This instance contains standard CRM information relating to LCM customers, including contact information, the status of support incidents, and reports on LCM customer meetings and calls.
- ***Fixed income sales personnel.*** Liquidnet fixed income sales coverage personnel sit on the sales desk; they can view fixed income orders from customers and contact customers to facilitate negotiations and executions in fixed income securities. Please refer to the Liquidnet Fixed Income Trading Rules for additional information. Members and customers can access the Liquidnet Fixed Income Trading Rules through the fixed

income Member website, which can be access from Liquidnet's public website. Members and customers also can obtain a copy of the Fixed Income Trading Rules upon request to a Liquidnet Sales or Member Services representative.

- ***Technology and controls personnel***

- ***Enterprise Technology Services personnel.*** Liquidnet's Enterprise Technology Services (ETS) group maintains the computers, networks, databases and connectivity that comprise the Liquidnet System. A subset of the ETS group (Production Support and Database Administration) has access to indication, order, execution and other trading information to troubleshoot production and system issues, when directed by the Product Support group. These ETS personnel are located in a keycard protected area and are on a separate network from other Liquidnet personnel.
- ***Software development personnel.*** Personnel responsible for development, enhancement, and maintenance of the software components of the Liquidnet system include software developers, and quality assurance personnel. These personnel have access to indication, order, execution and other trading information on a T+1 basis in connection with the performance of their duties. In some cases (particularly troubleshooting), it is necessary for these personnel to utilize intra-day data. In these cases, such access must be made from within the access-controlled Member Services area and under the supervision of Member Services personnel.
- ***Product personnel.*** Liquidnet's Product group is responsible for the design and enhancement of Liquidnet's trading products. Liquidnet's Product personnel have access to indication, order, execution and other trading information on a T+1 basis for the products that they work on (for example, Liquidnet 5, algos, TCA and commission management). Product personnel also can access trading information, subject to a delay of at least six calendar months, for evaluating new business initiatives; for new business initiatives involving quantitative analytics, they can make this trading information available to quantitative analytics personnel, subject to the delay period of six calendar months.

Members of Liquidnet's Product group also have access to reports on Member and trader performance and activity through Liquidnet, as described above in the Sales coverage section. These reports are not symbol-specific and do not include symbol-level information.

In addition, designated Members of Liquidnet's Product group who sit in the US Trading area have access to the EMS used by the Liquidnet trading desk. This access is to assist Liquidnet in responding to inquiries from Members and customers relating to system functionality in connection with day-to-day trading activity by Members and customers.

- ***Business Intelligence.*** The Business Intelligence (BI) team develops reports for use by internal groups, including Sales Analytics, Corporate Leadership, Sales, and Marketing, for use in monitoring, developing and enhancing Liquidnet's products and services as well as in support of Liquidnet's sales and marketing efforts. BI personnel have access to indication, order, execution and other trading information in the database. Reports, which can include trading information, may only be provided by the Business Intelligence group to employees in other groups if those employees are authorized, pursuant to Liquidnet's policies, to have access to the associated data.
- ***Legal, Compliance and SRM personnel.*** Liquidnet's Legal and Compliance personnel are responsible for working with the business units to establish and enforce Liquidnet's legal and compliance policies. Compliance includes the Liquidity Watch function in the US, Canada and Asia-Pacific and the Market Surveillance group in Europe. Liquidnet's Security and Risk Management (SRM) personnel are responsible for working with the business units to establish and enforce Liquidnet's policies relating to information security. Liquidnet's Liquidity Watch and Market Surveillance personnel have access to indication, order, execution and other trading information as well as commission aggregation information as part of their ongoing surveillance activity. Liquidnet's Legal, Compliance and SRM personnel are permitted to access trading information on an as needed basis in fulfilling their responsibilities, including for the conduct of investigations.
- ***Finance personnel.*** Designated members of Liquidnet's Finance team have responsibility for accounts payable and receivable operations in connection with the operation of Liquidnet's business. As part of these responsibilities, these designated members of the Finance Department have access to trading information after the end of the trading day. These personnel are located in a keycard protected area.
- ***Management personnel access to aggregated liquidity information.*** To assist Liquidnet's Corporate Leadership and Sales management personnel in evaluating Liquidnet's business performance, these personnel have access on a next-day basis to reports that include aggregated quantity of Member liquidity, broken out between buy and sell liquidity. This data also is available in real-time to the Head of EMEA for EMEA equities only. This data is aggregated, and is not broken out by Member. The aggregated categories are as follows: country; sector; index and market cap (e.g., large, mid, small and micro). Liquidity information is based on the order quantity from a Member's OMS or other indication quantity communicated by a Member to Liquidnet. This data is not available to non-management Sales personnel nor is this data made available to any external party.
- ***Internal reports.*** If a Liquidnet employee is authorized to access a category of data through an internal Liquidnet product, as described in these trading rules, the employee may also access such data through an internal report. For example, if Sales personnel are

authorized to access a category of data through SDB or Scout, they are also authorized to access such data through an internal report.

- ***All other Liquidnet personnel.*** All Liquidnet personnel who are not within the groups identified above are prohibited from accessing trading information without prior review and approval from the Compliance and SRM Departments, except as otherwise described in this document.
- ***Trading data provided to Liquidnet employees generally.*** Liquidnet can provide aggregated trading data to its employees. Aggregated trading data can be broken out by country, sector, index and market cap. Liquidnet also can provide data to employees regarding specific executions, but the symbol is only identified for attributed trades (trades where Liquidnet is required by regulation to be publicly identified as the executing broker). Examples of data regarding individual non-attributed executions that can be provided include the quantity of Liquidnet's largest cross for a day by principal value and the quantity of Liquidnet's largest cross for a day by 30-day ADV. This data is in addition to symbol-specific data to which Liquidnet RMs, Traders, Member Services personnel and other Liquidnet personnel may have access, as described above.

Liquidnet can further provide any trading data to employees where the data is not symbol-specific. Examples of this type of trading data include:

- Number of Members or customers trading through the ATS or trading desk in a specific region
- Daily revenue
- Aggregate liquidity from Members for that day
- Current aggregate liquidity from Members available for matching
- Daily shares, executions and principal traded that day, broken out by one or more of the following categories: negotiation; trading desk; desktop algos; LN auto-ex orders; automate negotiation orders; execution against SLS; and execution against brokers
- Daily shares and principal traded, broken out by time periods during the trading day, country or sector
- Average execution quantity for the day
- Average execution quantity for the day for negotiated executions
- Largest print of the day (quantity only)
- Liquidnet volume for the current day, week, month and quarter relative to Liquidnet's record volume for these periods
- Liquidnet market share data.

This data can be presented through display screens at Liquidnet's offices and viewed by all Liquidnet employees who work in the relevant Liquidnet office and visitors to the office. This data can be provided on a global basis or broken out for the region where the Liquidnet office is located. Data also can be broken out by sub-region; for example: UK and Ireland; Nordic countries; Continental Europe; and Emerging EMEA.

- **Consultants, contractors, vendors and business partners.** Liquidnet augments its in-house work force as needed with consultants, contractors, and vendor and business partner personnel. All such personnel are required to sign non-disclosure agreements with Liquidnet, are subject to criminal background checks by SRM and are subject to equivalent policies and procedures as Liquidnet employees in the departments in which they work.

### ***Physical layout of sales and trading areas***

- **US.** In Liquidnet’s New York office, there is a partition separating Liquidnet’s sales area from the trading area. Relationship Managers, Sales Analytics personnel, ASG personnel, trading strategy personnel, quantitative analytics personnel, fixed income sales personnel and algo development personnel sit in multiple rows within the sales area. Trading Desk personnel sit in the trading area. There is a floor-to-ceiling glass wall that separates the Member Services area from the other areas. The Member Services area has access controls. Member Services, Commission Management and certain Compliance personnel sit in the Member Services area. Some members of the Sales group work in satellite sales offices, including home offices, registered as Liquidnet branch offices.
- **Canada.** As noted above, the Liquidnet Canada trading desk is based in New York, but is operated from Toronto during days when the Canadian markets are open and the US markets are closed. In Liquidnet’s Toronto office, the trading desk is located in a private office with access controls. The Member Services area in Toronto similarly is located in a private office with access controls. Liquidnet’s Toronto office handles the trade support function for Canadian equities, but the product support function is handled from the US.

To assist in resolving production and implementation issues, certain Product Support and Implementation personnel sit in the sales and trading areas.

### ***SSAE 16 assessment***

Each year, Liquidnet engages an outside auditor to assess Liquidnet’s processes and procedures for protecting the confidentiality of Member, customer and LP trading information. The report of this assessment (called an SSAE 16 assessment) is available to Members, customers and LPs on request and posted on the Member website.

## **Section 10.02 Disclosure of intra-day execution data by Liquidnet**

### ***Attributed trades***

For trades in Canadian equities executed on the Liquidnet Canada ATS, Liquidnet Canada is required by regulation to publicly identify itself to the market in real-time as the executing ATS. Liquidnet refers to these trades as “attributed trades.” Trades resulting from orders that Liquidnet routes to third-party execution venues are not considered attributed trades.

### ***Reporting of intra-day execution data through the Liquidnet desktop application***

Members that have indications in particular equities in Liquidnet can view intra-day Liquidnet execution information for those equities through the Liquidnet desktop application

Trades above a specified share or principal value threshold are reported through the Liquidnet desktop application in real-time; trades below a specified share or principal value threshold are aggregated and reported through the Liquidnet desktop application at ½ hour intervals.

For attributed trades, this functionality is part of Liquidnet's core service. For trades that are not attributed trades, Members and customers choose, via Liquidnet Transparency Controls, whether or not to have their intra-day Liquidnet executions reported through the Liquidnet desktop application. If a Member chooses to have its non-attributed trades excluded from this intra-day execution service, the Member is only able to view intra-day executions through the Liquidnet desktop application (in equities where the Member has an indication) if the trades are attributed.

### ***Intra-day advertising of trades through Bloomberg***

Liquidnet advertises attributed trades in Canadian equities through Bloomberg in real-time. Liquidnet also advertises non-attributed trades in Canadian equities through Bloomberg in real-time, but only if each party to the trade has opted in to this usage via Liquidnet Transparency Controls.

### ***Reporting intra-day symbol-specific execution data to Members, customers and LPs to attract block liquidity***

For attributed trades, Liquidnet personnel can disclose intra-day symbol-specific execution data to Members, customers and LPs to attract block liquidity. Methods of making this disclosure can include instant message, email and phone.

## **Section 10.03 Disclosure of end-of-day and historical execution data by Liquidnet**

### ***Identifying Liquidnet executions through the Liquidnet desktop application***

Members can view, through the Liquidnet desktop application, Liquidnet's aggregated execution volume in any Canadian equity for (i) the preceding trading day, and (ii) the five preceding trading days. Liquidnet desktop users receive additional alerts regarding historical (previous five trading days) Liquidnet executions, where:

- Liquidnet executed the largest print of the prior trading day in a stock
- Liquidnet executed the largest print of the year in a stock during the prior trading day
- Liquidnet executed a high percentage of ADV or block ADV in a stock during the prior trading day
- Liquidnet executed a high percentage of ADV or block ADV in a stock across the five previous trading days.

For attributed trades, where Liquidnet is required by regulation to publicly identify itself to the market in real-time, this functionality is part of Liquidnet's core service. For trades that are not attributed trades (for example, trades in US equities), Members and customers choose, via Liquidnet Transparency Controls, whether or not to have their historical Liquidnet executions included in the trading data reported through the Liquidnet desktop application as described in this sub-section. If a Member chooses to have its non-attributed trading data excluded from this historical execution service, the Member is only able to view through the Liquidnet desktop application the historical execution information described in this sub-section for trades that are attributed.

***Reporting historical symbol-specific execution data to Members, customers and prospects to attract block liquidity***

Liquidnet sales and trading personnel can disclose historical symbol-specific execution data on a non-attributed basis to attract block liquidity from Members, customers and LPs and to attract prospective Members and customers to join the system and add to our block liquidity pool.

Liquidnet does not disclose symbol-specific execution data between trade date and T+20 unless each Member or eligible customer that is party to the trade has opted in to such usage through Liquidnet Transparency Controls. This restriction does not apply for attributed trades, where Liquidnet is required by regulation to publicly identify itself to the market in real-time. For non-attributed trades, execution data on or prior to T+20 can only be disclosed to Members, buy-side trading desk customers and buy-side automated routing customers.

Examples of this type of disclosure include the following:

- Liquidnet personnel can provide current and prospective community members (defined as current and prospective Members and customers) a report of historical executions in (i) stocks listed on their public filings (for example, 13F reports), (ii) stocks included on an interest list that they provide to Liquidnet, or (iii) stocks in specific regions or sectors that they identify to Liquidnet.
- Liquidnet personnel can provide historical execution data in specific symbols if specifically requested by a Member or customer.
- Liquidnet personnel can report historical Liquidnet executions or aggregated Liquidnet volume for a specific symbol when that volume is significant in size; this can include when Liquidnet executes a trade that is large relative to the symbol's ADV or where a Liquidnet execution represents the largest execution in the symbol for the day or year.
- Liquidnet personnel receive automated alerts of historical executions through Liquidnet that are significant in size (as described above) when a Liquidnet Member or customer that the employee covers:
  - Is a publicly-reported holder of the stock
  - Has recently executed in the stock through Liquidnet or

- Has requested alerts in one or more symbols.

The alert identifies to the Liquidnet employee the applicable Member or customer for which the alert has been generated and the reason the alert has been generated for that Member or customer. Upon receipt of an alert, an employee can notify the Member or customer of the execution activity. The alerts are generated through Liquidnet's Sales and Trading Alerts Tool.

***Disclosure of prior LCM transactions to LCM customers (after T+20)***

LCM personnel can disclose to LCM customers the execution results from prior LCM repurchase, resale or offering transactions, but any execution data used must be beyond T+20.

***End-of-day and historical aggregated execution information***

Liquidnet can disclose to Members, customers and other parties end-of-day and historical (T+1 or older) execution information at the aggregated community level. The aggregated categories are as follows: country; index; sector; and market cap (e.g., large, mid, small, micro). Aggregated execution data also can include aggregated execution data for the subset of equities within an index that are most impacted by a rebalancing. For purposes of these trading rules, T+1 means after midnight based on the market where a trade is executed; for example, if a trade is executed in a Hong Kong equity during the regular trading day in Hong Kong, T+1 commences 12:00 am that evening Hong Kong time.

Liquidnet also can disclose historical aggregated execution data broken out by Liquidnet product or business line, including the following and other similar categories: negotiation; H2O; trading desk; algos; LN auto-ex orders; automate negotiation orders; automated routing; broker blocks; reverse inquiry; and targeted invitations.

**Section 10.04 Disclosure of aggregated (non-symbol specific) data**

***Disclosure of aggregated data on the current trading day***

Liquidnet personnel can provide disclosure to Members and customers that is not symbol-specific, including the following disclosures for the current trading day:

- Total principal value or shares traded across all products
- For negotiation:
  - Average execution size in principal value or shares
  - Percentage of executions within the spread
  - Percentage of executions at the mid-price
- For algos:
  - ***Algo fill rate.*** Percentage of the aggregate algo order volume executed by Liquidnet
  - ***Algo crossing rate.*** Percentage of the algo volume executed in the Liquidnet negotiation and H2O systems as a percentage of the algo volume executed by Liquidnet

- **Eligible participation rate.** Algo volume executed by Liquidnet as a percentage of eligible volume; eligible volume means volume within defined price limits
- Performance against a benchmark (for example, VWAP)
- Algo performance over specific time intervals
- Percentage of the algo volume executed within different block thresholds
- Percentage of the algo block volume executed within the Liquidnet ATSS versus externally.

This data can be provided by region (for example, Canada), but not by sector, index, market cap or other category. The algo statistics can be broken out by algo type and further broken out by algo parameter for an algo type. The categories of data listed above are intended as examples; Liquidnet can disclose other categories of aggregated data where similar to the categories of data listed above.

### ***Disclosure of aggregated data on T+1 or after***

The disclosures set forth in the preceding sub-section are also permitted on T+1 or after. In addition, the following disclosures of aggregated information are permitted on T+1 or after (but not on trade date):

- For negotiation:
  - Aggregate principal value or shares of liquidity
- For orders:
  - Total principal value or shares of orders
  - Average order size in principal value or shares.

In addition, on T+1 or after (but not on trade date):

- Liquidnet can break out aggregated data by one or more of the following categories, except if it would reveal the symbol: country, sector, index and market cap (e.g., large, mid, small, micro).
- Liquidnet can break out aggregated data for the subset of equities within an index that are most impacted by a rebalancing.
- Liquidnet can disclose historical aggregated execution data broken out by Liquidnet product or business line, including the following and other similar categories: negotiation; H2O; trading desk; algos; LN auto-ex orders; automate negotiation orders; automated routing; broker blocks; reverse inquiry; and targeted invitations.

### ***Aggregate data does not differentiate or separately identify buy and sell orders or liquidity***

In communicating aggregate order, liquidity or execution data, Liquidnet does not differentiate between or separately identify buy and sell orders, liquidity or executions.

### ***Definition of T+1***

For purposes of these trading rules, T+1 means after midnight based on the market where a trade is executed; for example, if a trade is executed in a Hong Kong equity during the regular trading day in Hong Kong, T+1 commences 12:00 am that evening Hong Kong time.

### **Section 10.05 Confirming and updating elections relating to Liquidnet's disclosure of execution information**

#### ***Member and customer elections relating to execution information***

Through Liquidnet Transparency Controls, Members and eligible customers can choose whether or not to permit the following usage of their execution data by Liquidnet:

- Reporting intra-day executions through the Liquidnet desktop application
- Advertising trades through Bloomberg intra-day
- Reporting historical executions through the Liquidnet desktop application
- Reporting, between trade date and T+20, historical symbol-specific execution data to Members and buy-side trading desk customers to attract block liquidity

For elections relating to data usage, eligible customers are buy-side trading desk customers. For Canada, these elections apply with respect to non-attributed trades only, as attributed trades are required by regulation to be publicly disclosed.

#### ***Process for confirming and updating elections***

Liquidnet maintains a record of each Member's and eligible customer's elections relating to the categories of data disclosure described above. Through the Liquidnet Transparency Controls web-based system, Member and eligible customers can view and update their elections. Any changes input through Liquidnet Transparency Controls are implemented within twenty-four hours. Members and eligible customers should contact their Liquidnet Sales coverage with any questions.

### **Section 10.06 Reports to Members, customers and LPs relating to their own indications, matches, negotiations and orders**

#### ***Order and execution details***

Liquidnet may provide to Members, customers and LPs the following information regarding their own equity orders: (i) order details, consisting of order time, quantity, symbol, side, order type and limit price (if applicable), and (ii) execution details, consisting of time and quantity of executions.

#### ***Match activity reports – equity orders***

Liquidnet may further provide to Members and customers upon request reports with respect to their equity orders (Liquidnet algo, LN auto-ex and automate negotiation orders, including firm and conditional) to enable them to monitor their success rate with contras with which they

matched. These reports can be provided on a next-day basis (T+1) or any time thereafter with respect to a period of one trading day or longer.

In particular, Liquidnet can provide the following aggregate information (not symbol-specific) to Members and customers with respect to their equity orders:

- The aggregate quantity of orders and shares submitted to Liquidnet by the Member or customer
- The aggregate quantity of orders and shares with matching indications
- In the case of conditional orders, (i) the aggregate quantity of orders and shares where Liquidnet requested firm-up from the Member's or customer's system, (ii) the aggregate quantity of orders and shares that the Member's or customer's system firm-ed-up in response to a firm-up request by Liquidnet, and (iii) the aggregate quantity of orders and shares executed by the Member or customer
- Average order and execution quantity
- The average resting and match duration of the Member's or customer's orders.
- The number of distinct symbol-side combinations received from the Member or customer; as an example, multiple buy-orders for a stock would be considered a distinct symbol-side combination, and a sell-order for the same stock would also be considered a distinct symbol-side combination
- In the case of conditional orders, (i) the number of distinct symbol-side combinations with a matching indication, (ii) the number of distinct symbol-side combinations where Liquidnet requested firm-up from the Member's or customer's system, (iii) the number of distinct symbol-side combinations where the Member's or customer's system firm-ed-up in response to a firm-up request by Liquidnet, and (iv) the number of distinct symbol-side combinations executed by the Member or customer
- Received and executed orders and share quantity, in each case, broken out by market cap (large, mid, small and micro-cap).

Liquidnet also can provide to Members and customers a symbol-specific report of their individual matched equity orders, including the duration of each order, subject to a minimum delay of 30 calendar days.

### ***Match activity reports – indications***

To assist Members in conducting analysis of Liquidnet as an execution venue and to address concerns raised by Members relating to system usage, Liquidnet can provide historical reports to a Member relating to data that was previously visible to a trader at the Member firm through the Liquidnet desktop application. The data in these reports can be symbol-specific and can include the time of a match and the actions taken by the Member and the contra (to the extent previously visible to a trader at the Member firm). The data in these reports is subject to a minimum delay of 30 calendar days.

### ***Reporting of execution venue and other information on routed orders***

Upon request, Liquidnet can provide the following data to Members and customers regarding their routed orders:

- Real-time identification of each venue where a trade has been executed (FIX Tag 30)
- For any external execution, where provided by the execution venue, real-time notification of whether Liquidnet posted liquidity or executed against posted liquidity (FIX Tag 851)
- Reports covering a monthly or longer period identifying the percentage of shares executed in various external venues; these reports can provide data for individual algo types or for all Liquidnet algo orders created by the Member or customer.

#### ***Post-trade and post-match market movement (aggregated)***

Liquidnet's ASG and quantitative analytics personnel can provide to Members and customers on an aggregated (not symbol specific) basis information relating to post-trade and post-match price movement in the stocks where they have executed or matched. Any data provided covers trading activity for a minimum aggregated period of one month.

This data can include post-trade price movement for the Member or customer for executed trades, matches broken by the Member or customer, and matches broken by the contra. Post-trade time intervals to be reported can be configured based on the Member's or customer's request.

This data is provided to the Member or customer to assist the Member or customer in determining whether it has incurred adverse price movement through Liquidnet.

#### ***Match analysis (aggregated)***

Liquidnet's ASG and quantitative analytics personnel can provide to Members and customers an aggregated match analysis of their indications and orders. Any data provided covers a minimum period of one month.

This data can include the percentage of the Member's or customer's indications or orders that matched, as well as the percentage of indications or orders that did not match as a result of the Member's or customer's limit price, the Member's or customer's tolerance, the contra's tolerance, and the duration of the Member's or customer's indication or order. The report can also show the projected impact on the Member's or customer's match rate had the Member or customer reduced its tolerance, increased its indication or order quantity, or extended the duration of its indications or orders by a specified amount or percentage.

This data is provided to Members and customers to provide enhanced transparency regarding Liquidnet's processing of their indications and orders, and to assist Members and customers in better understanding how they can improve their match rate through Liquidnet.

#### ***Broken match analysis***

Quantitative analytics personnel can provide data to a Member relating to the Member's broken matches to assist the Member in understanding generally the causes of broken matches involving the Member.

***Contra-type analysis (aggregated)***

Liquidnet can report to a Member or customer the percentage of shares and trades executed by the Member or customer through Liquidnet broken out by category of contra. All reports cover a minimum period of three calendar months. For purposes of this report, the contra categories can include, as applicable: long-only asset managers; hedge funds; buy-side trading desk customers; automated routing customers; transition managers; LPs (IOC orders); LPs (resting orders); LPs participating through an exchange; and LCM customers.

***Report of Member and contra positive action rates***

Liquidnet can provide to Members a report of their positive action rate, and the positive action rate of their contras, through the Liquidnet system. A report covers a minimum period of one week and can be broken out by instrument type and individual trader. Positive action means going active on a match or sending an invite to an active contra. Positive action rate (PAR) is the percentage of matched symbols where a party takes a positive action.

Specifically, Liquidnet can report the following data to a Member for the relevant period, and for the applicable instrument type and trader:

- Number of matches
- Number of matches where the Member (or trader, as applicable) took a positive action, and the resulting positive action rate
- The aggregated PAR of the contras for these matches
- Of the Member's (or trader's) matches, the number of matches where the contras, on an aggregated basis, took a positive action, and the resulting aggregated PAR of the contras for these matches
- Symbols received by Liquidnet from the Member (or trader, as applicable); symbols matched; and the resulting match rate (symbols matched as a percentage of symbols received by Liquidnet)
- The average match rate for the Liquidnet community for the relevant time period of the report.

### ***Report of average duration of a trader's indications***

Liquidnet Sales and Member Services personnel can view and review with a trader reports showing the relationship between the average duration of the trader's indications and the trader's performance in Liquidnet. Reports are not symbol-specific and can show for selected time periods during the day number and aggregate share quantity of new indications and median duration. Data can be broken out by relevant factors, including market cap (large cap; mid cap; small cap; and micro cap) and sector. Performance statistics include PAR, match rate and executed volume.

### ***Data relating to assessment of a participant configuration error***

Where Liquidnet discovers an error relating to a participant configuration caused by Liquidnet, Liquidnet can provide order and match-level data to the participant, including data of other participants not otherwise available to the participant, to assist the participant in assessing the extent of the issue, without identifying any other system participant. Before providing any data, Liquidnet would make a determination internally that providing such data would not adversely impact any other system participant.

### **Section 10.07 Disclosure regarding aggregate characteristics of the Liquidnet community**

Liquidnet can make the following disclosures to Members, customers and third-parties regarding the aggregate characteristics of the Liquidnet community:

- Total number of global Liquidnet Members and customers
- Number of Members and customers in each region (US, EMEA, Canada and Asia-Pacific)
- Percentage of the asset managers in each region that are Liquidnet Members
- Percentage of Liquidnet Members that are long-only asset managers and percentage that are hedge funds
- Criteria for participation as a Liquidnet Member or customer
- Total and mean equity assets under management across Liquidnet's Member and customer base
- Number of Members and customers in each region broken out by range of equity assets under management and the aggregate equity assets under management for the asset managers in each size range
- Percentage of total equity assets under management in each region represented by Liquidnet Members and customers.

### **Section 10.08 Aggregated usage and success-rate data relating to Liquidnet products**

Liquidnet personnel can disclose aggregated usage data relating to specific Liquidnet products and product features, including number of Members, customers or traders that have used a product or feature, volume of usage of a product or feature (including by number of orders,

shares, principal value or instrument types), and the success rate relating to a product or product feature. This data is not symbol-specific and is not specific to any Member or customer.

Examples of aggregated usage and success-rate data relating to Liquidnet products are as follows:

- The percentage of targeted invitation notifications that result in an execution.
- The percentage of targeted invitation executions where the executing recipient of the targeted invitation notification did not have an indication in the applicable security at the time he or she received the targeted invitation notification.
- For any period of one month or longer, the aggregate number of LP orders or shares for which a broker block notification was provided to at least one Member with a matching contra-indication and the number of executions and executed shares resulting from these notifications.
- For a particular product or service, the percentage of shares or principal value executed within the negotiation or H2O system or externally.

These are only examples of the types of aggregated usage and success-rate data that Liquidnet can provide.

#### **Section 10.09 Trading data provided to Member compliance and risk management personnel**

Upon request, Liquidnet can provide to compliance and risk management personnel at Member firms reports containing data that was previously visible to a trader at the Member firm through the Liquidnet desktop application. The data in these reports can be symbol-specific and can include the time of a match or the actions taken by the Member and the contra (to the extent previously visible to a trader at the Member firm), and negotiation chat messages transmitted and received through the Liquidnet desktop application. The Member requesting this data must confirm to Liquidnet that the data will be used only for compliance and risk management purposes.

#### **Section 10.10 Liquidnet aggregated commission data**

Liquidnet can provide data, as described in this section, to a vendor that reports on dealer share of institutional commissions. The vendor tiers institutions based on the aggregate commissions that they pay to dealers, as estimated by the vendor. The current tiers are as follows:

- Market Top 25 institutions
- Market 26-50 institutions
- Market 51-100 institutions
- Market 101-150 institutions
- Market 151-200 institutions
- Market 201+ institutions.

Liquidnet also can provide this data broken out based on customer type.

Liquidnet provides the vendor Liquidnet's aggregate commissions received for each tier group or customer type for each market. A market represents the issuers in a particular country. Liquidnet provides this data on a quarterly basis. All data provided by Liquidnet is aggregated for each tier group or customer type for each market; Liquidnet does not provide commission information for individual Members or customers or for individual stocks.

#### **Section 10.11 Aggregated disclosure of limited partner holdings to general partner**

In connection with US equity shares held at Liquidnet by a private equity or venture capital firm that is an LCM customer which shares are distributed by the firm (referred to as the "general partner") through Liquidnet to its limited partners, Liquidnet can disclose to the general partner the number of distributed shares that:

- Are still held by a limited partner at Liquidnet
- Have been executed by Liquidnet for the firm's limited partners
- Have been transferred by a limited partner to another broker.

A limited partner can opt out from having this information disclosed to the general partner. Liquidnet separately discloses to the general partner the number of shares of all limited partners that have opted out from having this information disclosed to a general partner. All data is provided to the general partner on an aggregated basis and without identifying any limited partner.

## **Part XI. Operational, regulatory and compliance provisions**

### **Section 11.01 Trade breaks**

#### ***Contra errors***

If, after a trade is crossed between two participants, Liquidnet reasonably determines that a trader has made an error or traded without proper authorization, Liquidnet has the discretion to break the trade. Liquidnet will provide a full explanation of the decision to both the trader and the contra and respond to all reasonable requests for information regarding the decision.

#### ***Executions during trading halts***

Liquidnet complies with all trading halts initiated by a regulator or recognized exchange and can break a trade executed during a trading halt period (for example, as a result of a delay in receipt of a trading halt message).

#### ***Trade cancels by an exchange***

From time to time an exchange may notify Liquidnet of the exchange's cancellation of trades in one or more specific securities executed on the exchange during a specific time period. Where Liquidnet executes trades in the exchange's securities off-exchange, and except as otherwise set forth herein, Liquidnet will only break trades in the named security during the specified period if the exchange notifies Liquidnet that the trade cancel is market-wide and not limited to the exchange.

### **Section 11.02 Audit trails; trade reporting**

#### ***Audit trail***

Liquidnet records an audit trail of each trader's indications, bids, offers and other actions taken through the System.

#### ***Canada trade reporting***

Liquidnet Canada reports all trades in the Liquidnet Canada ATS via the TMX IP, an OSC-approved information processor. Liquidnet Canada reports trades in the Liquidnet Canada ATS using the "L" marketplace identifier. For trades between two institutions, Liquidnet reports each side using Liquidnet's broker number (038/038). For a trade between an institution and a securities dealer, Liquidnet reports each side using the anonymous broker identifier (01/01).

In addition, Liquidnet Canada is required to provide a daily trade and monthly report to IIROC relating to trades in Canadian equities and a monthly report of all trades by Liquidnet Canada Members and customers in non-Canadian equities.

### **Section 11.03 Market data**

Liquidnet provides traders with market data (highest displayed bid, lowest displayed ask and last sale in the applicable jurisdiction) for the equities that are traded in the network.

Market data for Canadian equities is sourced directly from the Canadian information processor – the TMX IP. The market data feed provides consolidated quotes of multiple display venues.

Liquidnet uses the TMX IP market data fee to determine best bid and ask.

Members are not authorized to access market data for any equity until they attempt to start a negotiation or create a Liquidnet algo, LN auto-ex or automate negotiation order for such equity.

Market data is provided to traders to assist with the negotiation process. Liquidnet allows traders to use this market data by clicking on the bid, mid, ask or last market price or the last submitted proposal. A trader can manually change this actual value price prior to submitting a proposal.

Traders should have an independent source of market data at the time a proposal or order is transmitted or modified to verify or validate market data provided through Liquidnet.

The bid and offer prices for a jurisdiction displayed through the Liquidnet desktop application can continue to update between the end of one day's regular trading session and the start of the next day's regular trading session.

Exchanges providing market data impose terms and conditions on the use and redistribution of their market data. Members must comply with such terms and conditions as notified by the exchanges, subject to reasonable prior notice from Liquidnet. Liquidnet posts such exchange terms and conditions on the Liquidnet Member website. Liquidnet provides Members prior notice of such terms and conditions as applicable, including prior to a Member joining Liquidnet, prior to a Member being authorized to trade in a new market through Liquidnet, or prior to Liquidnet introducing trading on a new market.

### **Section 11.04 Trader access and OMS interface**

Members and customers should contact Liquidnet Product Support for:

- Permissioning traders for access to Liquidnet's services
- Creating and maintaining trader accounts
- Removing inactive traders
- Field translations/mappings between the OMS and Liquidnet.

Members and customers are responsible for ensuring that their traders keep their Liquidnet passwords confidential to avoid improper access to Liquidnet's System and services. Members and customers are responsible for actions by their traders using Liquidnet's System and services.

Administrative personnel at Member firms can access the Liquidnet desktop application for monitoring, risk control and compliance purposes.

### **Section 11.05 OMS placements**

Generation of placements in a Member's or customer's OMS can vary based on a Member's or customer's OMS and workflow. Typically, Liquidnet generates a placement in a Member's or customer's OMS when the Member or customer creates a Liquidnet algo order. The placement remains in effect for the duration of the algo order.

Subject to compatibility with any Member's OMS and workflow, Liquidnet can generate a placement for both sides of a match in one or more of the following additional scenarios, as follows:

- **Active match.** Liquidnet generates a placement for both sides of a match after one side of the match goes active. The placement is automatically canceled after 30 seconds if a negotiation has not commenced within the 30-second period. The placement also is canceled if the match breaks or the active side changes its indication status to passive.
- **Active-active match.** Liquidnet generates a placement for both sides of a match after both sides of the match have gone active. The placement is automatically canceled after 30 seconds if a negotiation has not commenced within the 30-second period. The placement also is canceled if the match breaks or either active side changes its indication status to passive.
- **Negotiation.** Liquidnet generates a placement for a Member when the Member sends or accepts an invitation to negotiate. In this case, the OMS placement is canceled immediately upon the negotiation ending.

A Member's Sales coverage is notified when a placement is generated for the Member upon an active match or commencement of a negotiation.

Members can contact their Liquidnet Sales coverage if they wish to disable or modify this placement functionality or not have this placement functionality implemented.

### **Section 11.06 OMS updates**

Members can have a one-way interface or a two-way interface. On a one-way interface, the trader should manually update the OMS after an execution through Liquidnet. On a two-way interface, the trader should check the OMS after an execution to confirm that the OMS has been properly updated with the correct execution information. For example, some OMSs will not update when the order is open in the OMS. A Member should contact its OMS vendor about any issues that may arise relating to electronic transmission of executions back to the OMS.

Members can configure the OMS interface to delay and bunch execution reports of Liquidnet algo, LN auto-ex and automate negotiation orders. Accordingly, a trader should refer to the

Liquidnet desktop application for the most up-to-date status on executions of Liquidnet algo, LN auto-ex and automate negotiation orders.

### **Section 11.07 Clearing process**

#### ***Trade date***

Trades that are made in Liquidnet pre-market open, during the trading day or after the close of the applicable exchange are given a trade date of the current day.

#### ***Settlement date***

All trades in Canadian equities settle on the third business day following trade date (T+3).

#### ***Buy-ins; sell-outs***

Liquidnet or its clearing firm reserves the right, in accordance with local market practice and subject to local regulations, to buy-in or sell-out a position not settled by settlement date.

#### ***Allocations***

By the end of the trading day, Members and customers must electronically send Liquidnet trade allocations for all trades done through Liquidnet that day. Such data may be electronically transmitted to Liquidnet via Omgeo's OASYS™/OASYS GLOBAL™ software or another mutually agreed upon method of transmission. Liquidnet transmits trade information to its clearing broker, in most cases at the end of each trading day.

#### ***Settlement parties***

Settlement of trades is between Liquidnet's clearing or executing broker for the applicable market and the account(s) designated by the Member or customer, based on the Member's or customer's trade allocations, as follows:

| <b>Region</b>        | <b>Jurisdiction</b>   | <b>Liquidnet's clearing or executing broker</b>   |
|----------------------|---|---|
| <b>North America</b> | US and Mexico   | Goldman, Sachs & Co. (GS&Co.)   |
|                      | Canada  | National Bank Correspondent Network (for Canadian Members); GS&Co. (for non-Canadian Members) |
| <b>EMEA</b>          | All countries   | Société Générale Securities Services (Société Générale)                                       |
| <b>Asia-Pacific</b>  | Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand, Australia and New Zealand | BNP Paribas Securities Services (BNP)   |
|                      | Japan   | BNP (for off-shore accounts); Liquidnet   |

|  |        |   |
|--|--------|---|
|  |        | Japan self-clears for on-shore accounts |
|  | India  | Morgan Stanley India                    |
|  | Korea  | Morgan Stanley Korea                    |
|  | Taiwan | Morgan Stanley Taiwan                   |

When a Member, customer or trader submits an order or executes a trade on behalf of a principal account (which may be the Member or customer itself), it is a certification that the Member or customer is authorized to act on behalf of the principal account for such purpose and that the order or trade is a permitted investment of the principal account. Any trade executed through Liquidnet shall constitute the legal and valid obligation of the principal account.

Liquidnet Canada has been recognized by the Investment Industry Regulatory Organization of Canada (IIROC) as an acceptable trade matching utility. Trades in Liquidnet Canada by CDS Clearing and Depository Services Inc. members (brokers) are eligible for continuous net settlement.

### ***Settlement process***

All accounts to which executions are allocated must be Delivery Versus Payment (DVP) and Receive Versus Payment (RVP) accounts.

All trades must settle according to an account's standing instructions. All instructions must be maintained as current, and any change(s) to any instruction must be updated in the Member's or customer's Alert™ system or made known to Liquidnet's brokerage operations group as soon as possible, via facsimile transmission or e-mail with return receipt.

Trades settle in the local jurisdiction of the security, as indicated by the Liquidnet instrument type. Members and customers must have a custodian, sub-custodian or prime broker in the local jurisdiction.

Trades settle in the currency of the local jurisdiction. Liquidnet does not offer Members and customers the facilities to execute FX transactions.

Upon request and subject to agreement by Liquidnet's clearing firm Liquidnet can settle in US dollars a trade by a US Member in a Canadian equity. In this scenario, Liquidnet's clearing firm provides a currency exchange service, and Liquidnet's clearing firm settles with the US Member in US dollars based on the clearing firm's conversion rate.

### ***Single-ticket clearing***

Liquidnet can settle Member and customer trades with a broker designated by a Member or customer, where the broker provides a single-ticket clearing service to the Member or customer. In the single-ticket clearing service, orders are not routed through the systems of the single-ticket clearing firm. Trade information is provided to the back-office of the single-ticket clearing firm in real-time, but trade information is not provided to the trading area of the single-ticket clearing firm. Liquidnet's participation in a single-ticket clearing arrangement is subject to agreement of

terms among Liquidnet, the Member or customer, and the designated single-ticket clearing broker.

### ***Step-outs; step-ins and give-ups***

Members and customers can step-out or give-up to third-party brokers trades executed through Liquidnet, or step-in to Liquidnet (or have third-party brokers give-up to Liquidnet) trades executed through third-party brokers, subject to agreement among Liquidnet, the Member or customer, and the third-party broker. Step-outs and step-ins are US-specific terms; give-up is a term used in EMEA and other regions.

### ***Trade confirmations***

The applicable Liquidnet entity and/or its clearing or executing broker in the applicable market send trade confirmations in accordance with applicable legal requirements. For example, National Bank Correspondent Network sends trade confirmations for trades by Canadian Members and customers in Canadian equities.

### ***Stamp tax***

Members and customers may be responsible for stamp tax in connection with purchases or sales through Liquidnet in certain instrument types. Members and customers should consult their tax advisors for additional information.

## **Section 11.08 Credit and other risk controls; controls to protect against order entry error**

### ***Credit risk controls***

Liquidnet has established a US\$5 million aggregate exposure limit for each Member and customer globally. A Member's or customer's exposure represents the net out-of-the-money value of trades that it has executed through Liquidnet but not yet affirmed. Liquidnet's Member Services personnel monitor for Members and customers that approach this exposure limit and endeavor to notify them before the applicable limit is reached. If a Member's or customer's exposure approaches or exceeds the limit, Liquidnet's Member Services personnel take corrective actions that may include contacting the Member or customer to affirm trades, increasing the Member's or customer's credit limit or suspending trading activity for the Member or customer.

### ***Principal value and share limits through the Liquidnet desktop application***

Members can set hard and soft per order quantity limits to protect against order entry error. The following options are available:

- ***By instrument type.*** A Member can set a separate quantity limit for each instrument type.

- **By trader.** Each trader can set his or her own set of quantity limits for each instrument type.
- **Hard or soft limit.** For each instrument type, a trader can set a hard limit or a soft limit. With a hard limit, a trader cannot submit a negotiation proposal or create a Liquidnet algo, LN auto-ex or automate negotiation order that exceeds the trader's designated limit. With a soft limit, the system notifies the trader when he or she enters a price and quantity for a negotiation proposal or Liquidnet algo, LN auto-ex or automate negotiation order that exceeds his or her designated limit, but the trader can proceed to submit the negotiation proposal or create the Liquidnet algo, LN auto-ex or automate negotiation order.
- **Shares or principal value.** For each instrument type, a trader can designate a maximum share limit or a maximum principal value limit. The principal value limit can be set based on the local currency or based on US dollars.

Members can contact their Liquidnet Sales coverage to request that these controls be implemented.

***Additional controls for negotiated executions and algo, LN auto-ex and automate negotiation orders***

To safeguard against the entry of erroneous orders, Liquidnet limits the principal value of a negotiated execution for Canadian equities to CAD\$100 million. Liquidnet also prevents the creation of any Liquidnet algo, LN auto-ex or automate negotiation order for Canadian equities that is above CAD\$100 million. Liquidnet provides the above-referenced risk management and supervisory controls to Members and customers trading Canadian equities on the Liquidnet system.

***Controls through the Liquidnet trading desk EMS***

- **High touch and low-touch orders.** A high-touch order is an order that requires an action by a Liquidnet trader before Liquidnet can commence trading of the order. The Liquidnet trading desks in each region handle high-touch orders for the equities traded in their respective regions.

A low-touch order is an order where the customer designates an algo and the algo order can be traded by Liquidnet upon receipt without any action by a Liquidnet trader. Low-touch orders can include algo orders created through the Liquidnet desktop application and Liquidnet algos selected and routed from the customer's OMS desktop, including Liquidnet Only. Liquidnet's ASG group in Toronto monitors low-touch orders for Canadian equities in accordance with applicable Canadian regulations, except that Liquidnet Canada trading desk personnel in New York or Toronto can view but do not monitor low-touch orders created through the Liquidnet desktop application.

- **InfoReach.** The Liquidnet Canada trading desk uses the InfoReach EMS to handle both high touch and low touch orders.
- **InfoReach alert thresholds.** InfoReach provides alert functionality; if an alert threshold is triggered for an order, InfoReach automatically pauses the order, and the order cannot continue executing until a Liquidnet trader affirms that the order should continue executing. The following alert thresholds have been implemented for incoming orders handled through InfoReach:

| Region            | Principal value limit (per order) | Share limit (per order) | Order size as a percentage of ADV (in shares) | Open gross positions | Limit price deviation from arrival |
|-------------------|-----------------------------------|-------------------------|---|----------------------|------------------------------------|
| Canadian equities | US\$10 million                    | 1 million shares        | 200%  | US\$50 million       | 9%                                 |

- **Application of alerts.** Alerts are triggered upon receipt of an order that exceeds an alert threshold. For high-touch orders, alerts also are triggered upon creation of a child order that exceeds the thresholds above
- **Adjustment of alert thresholds.** Liquidnet can adjust an alert threshold based on a request by a Member or customer, but any increase from a threshold set forth above is subject to approval by Liquidnet consistent with Liquidnet’s risk management policies. Liquidnet can reduce the applicable thresholds for one or more Members or customers upon notice based on Liquidnet’s risk management policies.
- **Configuration of alert thresholds.** A Member or customer can request configuration of any of these alerts based on the following order characteristics: high-touch or low-touch; market or limit; and instrument type. However, any increase from a threshold set forth above is subject to approval by Liquidnet consistent with Liquidnet’s risk management policies.
- **Principal value of an order.** For purposes of Liquidnet’s risk controls:
  - Principal value of a limit order equals the number of shares times the Member’s or customer’s limit price
  - Principal value of a market order equals the number of shares times the last sale price in the market (or, if the last sale price is not available, the previous day’s closing price).
- **ADV.** For purposes of Liquidnet’s risk controls, “ADV” means the average daily trading volume in the stock for the 21 prior trading days.

- ***Open gross positions.*** The open gross positions threshold is applied in the same manner as the principal value limit (per order) threshold, except that the principal values of all unexecuted algo orders of a Member or customer are aggregated.
- ***Arrival price.*** Arrival price is the last sale price in the market at the time of order receipt (or, if the last sale price is not available, the previous day's closing price).
- ***Additional alert threshold based on price movement.*** A Member or customer can set an additional alert threshold based on the price movement in a stock from the time of order receipt relative to the arrival price. Liquidnet does not set this alert threshold by default but can do so upon request of a Member or customer.
- ***Handling of alerts.*** If an order triggers an alert threshold, as described above, the Liquidnet EMS pauses the order and generates an alert to the Liquidnet trading desk or ASG representative, as applicable. Upon receipt of an alert, the Liquidnet trading desk or ASG representative must review the order details to determine whether the order could represent an error by the Member or customer. If the Liquidnet representative determines that the order could represent an error, the Liquidnet representative should contact the Member or customer to confirm the order quantity, principal value or limit price, as applicable. Upon receipt of the confirmation from the Member or customer, or if the Liquidnet representative determines that the order could not represent an error, the Liquidnet representative can proceed with the order. If the Member or customer is not able to provide this confirmation, the Liquidnet representative should cancel the order and notify the Member or customer of the cancellation.
- ***Reducing a customer's trading limits.*** Upon prior notice, Liquidnet can reduce a Member's or customer's trading limits in accordance with Liquidnet's risk management processes.

### ***Controls for third-party algo and routing technology***

As discussed in Section 3.11, Liquidnet utilizes third-party algorithmic, aggregator and smart order routing technologies to maintain trading schedules and route to exchanges and other venues, including the Liquidnet negotiation and H2O systems. Where Liquidnet utilizes a third-party broker's technology in this manner, Liquidnet works with the third-party broker for the third-party broker to implement relevant automated risk controls, including controls relating to price and quantity.

### ***Execution price controls***

Liquidnet complies with price restrictions as required by regulation (see Section 8.01).

For Canadian equities, the Liquidnet desktop application warns a trader if he or she tries to submit a bid or offer that is more than 5% away from the quote price (usually the primary quote). Liquidnet can adjust these protections for a Member at the Member's request, but is not required to increase the percentage above the specified default percentage.

## ***Suspension***

Liquidnet can suspend a Member's, customer's or LP's participation in Liquidnet in accordance with Liquidnet's risk management processes, based on credit concerns, regulatory compliance, system and technical issues, non-compliance with usage protocols, and other factors that Liquidnet determines appropriate, subject to Liquidnet acting in a non-discriminatory manner.

## ***Additional details regarding Liquidnet's risk management controls***

Members and customers should contact their Liquidnet sales coverage or Liquidnet Member Services for additional detail regarding Liquidnet's risk management controls and processes.

### **Section 11.09 Credit review**

In connection with a credit review of a participant, Liquidnet can request financial information from the participant where the information is not publicly available.

### **Section 11.10 Errors and accommodations; test trades**

This section relates to Liquidnet's handling of errors and accommodations and test trades.

#### ***Liquidnet's error and accommodation accounts***

Liquidnet may need to book a trade through our error or accommodation account (i) in the case of a Liquidnet, Member or customer error or (ii) where Liquidnet agrees after the close of trading to provide an average price execution to a Member or customer for the odd lot or other residual portion of the Member's or customer's order previously executed by the Member or customer through Liquidnet. This activity is booked through Liquidnet's error or accommodation account, each of which is a principal account of Liquidnet.

Liquidnet will only book a trade through our error or accommodation account if specifically requested by a Member or customer. Liquidnet is not obligated to provide any accommodation to a Member or customer. Any decision by Liquidnet relating to an error or accommodation is subject to internal approval, consistent with Liquidnet's policies and procedures.

Liquidnet can enter into a hedging transaction as principal to hedge the risk of a position taken as a result of an error or accommodation.

#### ***Liquidnet's procedures when closing out error and accommodation positions***

When closing out a position resulting from an error or accommodation, Liquidnet has implemented the following controls for the protection of Liquidnet Members and customers:

- Liquidnet closes out trading positions by creating a Liquidnet algo order (external only) or through DMA (direct market access) to an exchange or other execution venue.

- Any Liquidnet algo order has the same implementation and priority as another algo order of the same type and parameters, regardless of whether the algo is initiated by a Member or customer or a Liquidnet trader; the only difference is that any Liquidnet algo order created to close out a position resulting from an error or accommodation only can execute in external venues.
- Liquidnet's traders do not have access to any information regarding indications or negotiations taking place in the Liquidnet negotiation system.

### ***Test trades requested by a Member, customer or LP***

If specifically requested by an existing or prospective Member, customer or LP, Liquidnet may execute a test trade with the Member, customer or LP to test new functionality that the Member, customer or LP will be accessing. These test trades are for minimal round lot quantities (for example, 100 shares for Canadian equities). Liquidnet acts as principal when effecting these test trades and promptly closes out the position through the external market. These test trades do not interact with any Member, customer or LP order flow except for the order flow of the Member, customer or LP that specifically requests that Liquidnet conduct the testing. There are certain markets where Liquidnet cannot execute test trades; Member Services personnel will notify participants of these markets upon request.

### ***Testing of new and updated algo types***

Liquidnet can test new and updated algo types on a principal basis, subject to the following conditions:

- The algo type is configured to prevent any interaction with the Liquidnet ATSS, MTFs and other internal crossing functionality
- Liquidnet selects a stock for which Liquidnet does not have a Member or customer algo order at the time
- The quantity of the order is limited to minimize any market risk to Liquidnet
- Liquidnet promptly closes out any resulting positions, subject to the same restrictions.

Each Liquidnet entity conducts this testing for its own region. The purpose for testing algo types in this manner is to enhance the performance of new and updated algo types for the benefit of Members and customers and to detect and address any potential risks relating to algo performance.

## **Section 11.11 Liquidity Watch; automated market surveillance for Canadian equities; match breaks**

### ***Liquidity Watch***

Liquidity Watch is a group within Liquidnet's Compliance Department that monitors for Member non-compliance with system usage protocols. Liquidity Watch maintains metrics for

each Member on their system usage and monitors for patterns of conduct by Members, customers and LPs that could cause frustration for other system users. RMs and Liquidnet trading desk personnel have access to these metrics. Liquidity Watch also documents and researches Member and customer complaints and recommends appropriate follow-up. Liquidity Watch also monitors for activity by LPs that is adverse to Liquidnet's Members and customers. Liquidity Watch is a fundamental component of Liquidnet's efforts to provide a protected environment for Members and customers.

Liquidnet may terminate the Subscriber Agreement with any Member whose traders utilize Liquidnet's services in a manner inconsistent with these Trading Rules or system usage protocols or suspend or terminate a Member's, customer's or LP's access to Liquidnet's services.

### ***Automated market surveillance for Canadian equities***

Liquidnet has implemented automated market surveillance for trading in Canadian equities. The offending activities detected by automated market surveillance are as follows:

- A Member moves a match from outside to in the pool and then to outside shortly afterwards.
- A Member declines an invitation or exits a negotiation shortly after setting an indication to active.

In response to a detected offending activity, the System may, depending upon the facts of the particular situation, automatically block the offending Member from matching in the applicable symbol for the remainder of the day. The System notifies the Member and the affected contra when an automated block has been implemented. Automated blocking is an objective function of pre-determined system logic is not dependent upon the Member involved.

A Liquidnet MSR can remove a block instituted in accordance with this sub-section if Liquidnet determines that the Member acted in accordance with Liquidnet protocols.

### ***Match breaks***

Liquidnet Member Services personnel can break a match at the request of an RM when specifically requested by the Member covered by the RM, or when the RM reasonably determines that the contra is not responsive on a match and the contra's lack of responsiveness has caused or will cause frustration to the Member covered by the RM, subject to the following conditions:

- The RM is required to notify the contra's RM when proposing a match break.
- The contra's RM is required to contact the contra; if the contra is not available, or the contra indicates that he will not take action on the match, the contra's RM should notify the Member's RM, at which point the Member's RM is permitted to request that an MSR break the match.
- In all cases, the RM is required to input through SDB the request for the match break, including the reasons for requesting the match break.

- The request is received by Member Services, which can then break the match.

A match break prevents the two specific indications from matching for the remainder of the trading day. At the request of a Member, Liquidnet can undo a match break.

### ***Symbol blocks***

At the request of a Member, Liquidnet can block the Member from matching on a specific symbol with a specific contra based on a negative trading experience with the contra in that symbol. Liquidnet automatically removes any symbol block at the end of the fifth trading day after the date on which the symbol block was first instituted.

### **Section 11.12 Information on Liquidnet**

Traders and other Member and customer personnel should not disseminate outside Liquidnet any information about Liquidnet indications and negotiations. Liquidnet may terminate the Subscriber Agreement with any Member or customer whose traders or other personnel violate this restriction or suspend or terminate the Member's or customer's access to Liquidnet's services.

### **Section 11.13 Liquidnet Member Services**

Liquidnet has Member Services support available in New York, London, Toronto, Hong Kong, Sydney and Tokyo. These groups handle product support, trade support, and implementation. Member Services personnel in Toronto handle trade support and implementation but not product support.

### **Section 11.14 Training**

Liquidnet has an on-site training program for all new traders and in connection with new releases of the Liquidnet desktop application. In addition, Liquidnet sales personnel are available upon request to provide additional on-site System training to traders. Liquidnet Member Services is also available by telephone to answer any questions that traders have regarding the System and Liquidnet's services. It is important that traders go through the on-site training program and take advantage of any additional training that they require so that they are comfortable with using the System.

### **Section 11.15 Versions of Liquidnet software**

The existing versions of the Liquidnet desktop software available for general release are Liquidnet 5.1 through 5.5. These versions are referred to collectively as "Liquidnet 5".

### **Section 11.16 Pilot releases; release process**

Liquidnet may release new versions of Liquidnet 5 and other software upgrades on a pilot basis prior to full roll-out. Further, for risk management purposes and to validate functionality,

Liquidnet may introduce new versions of Liquidnet 5 and other software upgrades to different groups of customers sequentially over a period of time. Liquidnet typically seeks to complete the process described in the preceding sentence over a period of two to three weeks.

#### **Section 11.17 Temporary configuration changes**

Liquidnet can modify a default or custom configuration for one or more participants on a temporary basis to address unusual market conditions or otherwise for risk management purposes.

#### **Section 11.18 Additional information**

For additional information, please refer to Section 1.14 of these trading rules.