Exhibit 3

This Form ATS-N amendment is an amendment to Part II, Items 7.a., 7.b. and 7.d. We have marked added text in color and underlined; we have marked deleted text in color and strikethrough.

Part II, Item 7.a.

A. General

Confidential trading information of participants of the H2O ATS may consist of:

* The identity of participants
* Orders transmitted to the H2O ATS by or on behalf of a participant
* Trades executed in the H2O ATS by a participant.

In the response to Item 7.d. of this Part III, we describe the access to these categories of information by Liquidnet employees and on-site consultants.

In this response we address the following topics:

* External disclosure of identity of participants
* External disclosure of order and trading information
* Controls and procedures relating to access to and use and disclosure of trading information.

B. Identity of participants

LNI maintains the anonymity of all Members and customers. LNI makes available to all participants a list of all liquidity partners that participate on the system. Participants can access this list through a password-protected website for participants that LNI maintains. LNI also provides this list to participants upon request. The reason for providing this list is to allow Members and customers the option to block interaction with specific LPs.

C. Order and trading information

Liquidnet community trade advertising

Community trade advertising refers to any trade advertising that is limited to Members and customers. Examples of community trade advertising are advertising through Liquidnet 5, Liquidnet sales coverage, third-party EMSs and OMSs of Members and customers and Member and customer chat rooms. By default, Members and customers are opted-in to intra-day (including real-time) Liquidnet community advertising of their trades. Through Liquidnet Transparency Controls, Members and customers can opt-out of intra-day Liquidnet

community advertising of their trades and instead opt-in to one of the following: end-of-day community advertising; or community advertising on T+21 (21 trading days after trade date).

Since only Members have access to Liquidnet 5, only Members can view trade advertising through Liquidnet 5, but Members and customers can view other types of community trade advertising. LNI may restrict a Member or customer from viewing community trade advertising based on the Members or customers Transparency Controls elections.

External trade advertising

External trade advertising refers to any trade advertising that is not limited to existing and prospective Liquidnet Members and customers. External trade advertising includes Bloomberg advertising. By default, Members and customers are opted-in to intra-day (including real-time) external advertising of their trades. Through Liquidnet Transparency Controls, Members and customers can opt-out of intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. After T+20, LNI can disclose executed trades to current and prospective Members and customers, regardless of whether the parties to the trade have opted-in to external or community trade advertising.

Brokers and Liquidnet Capital Markets customers

By default, liquidity partners and brokers that participate as customers cannot make elections through Liquidnet Transparency Controls and cannot opt-out from intra-day Liquidnet community and external advertising, subject to the following exceptions:

* Transition managers can make elections through Liquidnet Transparency Controls
* For orders transmitted by a liquidity partner through a participant identifier that only permits principal orders, the liquidity partner can opt-out from intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. Liquidity partners can request either of these alternatives by contacting their trading coverage.

LNI defaults Liquidnet Capital Markets (LCM) customers to intra-day community and external advertising. LCM customers cannot opt-out from intra-day community advertising. LCM customers can opt-out from intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. LCM customers do not have access to Liquidnet Transparency Controls. LCM customers can request either of these alternatives by contacting their trading coverage.

Additional detail on trade advertising

Trade advertising is restricted if the Transparency Controls setting of either or both parties to the trade would restrict that advertising. For both Liquidnet community and external

advertising, an advertising time threshold permits advertising any time at or after that threshold. For example, electing end-of-day advertising permits advertising end-of-day and T+1 and after. Community advertising for a trade consists of the symbol, quantity, ~~and~~ date and price for the trade. External advertising of a trade through Bloomberg consist of the symbol, quantity and date for the trade, but not the price.

A participants time delay for Liquidnet community advertising cannot be longer than its time delay for external advertising. For example, if a participant is opted-in to end-of-day external advertising, a participant can only elect intra-day or end-of-day Liquidnet community advertising.

Upon request by a Member or customer, Liquidnet, in its sole discretion, can exclude the Members or customers trades from all Liquidnet trade advertising, including symbol-level and aggregated (not symbol-specific) advertising. This exclusion does not apply to any trade advertising that is required by the rules of a governmental or regulatory organization.

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

Liquidnet sales and trading personnel can disclose symbol-specific execution data to Members, customers and LPs and prospective Members and customers if either of the following applies:

* External trade advertising is permitted for the trade based on the rules set forth above; or
* After T+20.

Disclosing symbol-specific execution data to existing Members and customers is permitted based on the rules for community trade advertising set forth above.

The purpose for this activity includes supporting existing participants, attracting additional liquidity from existing participants, and attracting additional participants to join the system and add to our liquidity pool.

Changes to Transparency Controls

Liquidnet implemented changes to Transparency Controls on April 6, 2020.

The following is a description of how the April 6, 2020 changes to Liquidnet Transparency Controls relating to data usage impacted Members and customers that had made elections through Liquidnet Transparency Controls prior to that date:

 * For Liquidnet community advertising, existing Members and customers were defaulted to the shorter time delay of their then existing Transparency Controls settings for Liquidnet

Desktop and Account Servicing Personnel Advertising, except that a participants time delay for Liquidnet community advertising cannot be longer than its time delay for external advertising.

*Existing Member and customers were defaulted to intra-day external advertising if they were prior to that date opted-in to end-of-day Bloomberg advertising and were defaulted to off for external advertising if they were prior to the dateopted-out from end-of-day Bloomberg advertising.

Disclosure to 3rd-party vendors

LNI discloses execution data to certain 3rd-party vendors that provide services to the H2O ATS and are subject to contractual non-disclosure obligations. Examples of these vendors are LNIs clearing firm and a vendor that has developed software to display participant-specific risk management data in a graphical manner to Liquidnet support personnel.

Disclosure of aggregated data

LNI discloses certain aggregated trading data to participants and other third-parties. Aggregated data is not symbol-specific. Aggregated data is broken out by one or more of the following categories: sector; index; and market cap category (micro, small, mid and large).

Reports to participants relating to their own trading activity

LNI provides certain reports to participants relating to their own trading activity. For example, LNI, upon request, provides a report to LPs showing the number of their 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. As a second example, upon request, LNI provides to a participant on T+1 a report that includes all orders created by the participant the prior trading day and, for each order, whether at least one Member received a targeted invitation and whether there was a resulting execution. The purpose of these two reports is to assist participants in assessing the impact of Liquidnet functionality on execution quality.

Notification whether contra was an LP

LNI can notify a Member or buy-side customer whether the contra for any execution by the Member or customer was an LP.

D. Controls and procedures relating to trading information

Liquidnet has implemented various safeguards and procedures to protect the confidential trading information of participants in the H2O ATS. This response provides a summary of these procedures.

Access to internal applications

Liquidnet has implemented procedures for employees requesting access to applications that contain confidential participant information. An employee requesting access to an application that contains confidential participant information must request approval from his or her manager. If the manager approves the request, the manager must notify the gatekeeper for the application, as designated by Liquidnet. The gatekeeper manages access entitlements for the relevant application. The gatekeeper must notify Liquidnets Security and Risk Management (SRM) group. The manager must provide an explanation for any requested access. A manager cannot approve an access request unless the manager determines that: (i) the employee requires the requested access for the performance of his or her responsibilities on behalf of Liquidnet; (ii) providing the requested access will not adversely impact one or more Liquidnet participants; and (iii) Liquidnet has provided disclosure to its participants that would cover the requested access. SRM must sign-off on any new access entitlements. Compliance conducts oversight of this process. An employees access to an application continues until terminated by Liquidnet. SRM manages a process that involves the periodic review by each manager of the current access entitlements of the employees in the managers group to verify that existing authorizations are still appropriate.

Annual SSAE18 SOC2 and ISO 27001 assessments

Each year, Liquidnet engages an outside auditor to assess the suitability and implementation of Liquidnets information security controls. This assessment includes a review of Liquidnets processes and procedures for protecting the confidentiality of participant trading information. The report of this assessment (called an SSAE18 SOC2 assessment) is posted on the Liquidnet Member website and available to our participants at any time. Liquidnet also provides a copy of the assessment to participants upon request.

SSAE is the Statement on Standards for Attestation Engagements, which is overseen by The American Institute of Certified Public Accountants (AICPA) and more specifically the Auditing Standards Board (ASB). The SOC 2 report evaluates the business information systems that relate to security, availability, processing integrity, confidentiality and privacy.

Liquidnet also obtains an annual ISO 27001 certification. ISO 27001 is a framework of policies and procedures that includes all legal, physical and technical controls involved in an organizations information risk management processes. According to the ISO 27001 documentation, ISO 27001 was developed to provide a model for establishing, implementing, operating, monitoring, reviewing, maintaining and improving an information security management system. Organizations can become ISO 27001 certified by undergoing a third-

party assessment by an accredited auditor. Liquidnet engages an outside auditor to confirm that it has implemented information security compliant with ISO 27001. Liquidnets ISO 27001 certification is posted on the Liquidnet participant website and available to our participants at any time. Liquidnet also provides a copy of the certification to participants upon request.

Employee trading policies and review

Liquidnet requires all employees to report their brokerage accounts to the Compliance Department. Liquidnet prohibits employees from trading individual equities, subject to certain exceptions (for example, trading in an account managed by a third-party; sale of stock acquired prior to employment by Liquidnet; and Direct Stock Purchase Plans). Liquidnet prohibits participation in initial public offerings as well as trading of individual stock options and other individual stock derivatives. Liquidnet permits trading in ETFs but requires a minimum holding period. Liquidnets Compliance Department uses a third-party software product to assist in monitoring for employee compliance with Liquidnets policies related to employee trading. Liquidnet requires employees to provide confirmations and statements for their equity and ETF trading accounts. For confirmations and statements received electronically through the third-party software product, the third-party software product validates compliance with Liquidnets trading policies; for confirmations and statements received by mail, Liquidnets Compliance Department personnel monitor for compliance with Liquidnets trading policies. Employees who violate Liquidnets employee trading policies are subject to sanction, including potential termination of employment.

E-mail, IM and correspondence review

Liquidnet has policies for review of email, IM and other correspondence sent by registered Liquidnet employees. These reviews, which are conducted by Liquidnets business managers (with oversight by Compliance), include a review for any communications that could evidence misuse of customer information in violation of Liquidnet firm policy. Liquidnet maintains a record of all email, IM and other correspondence sent and received; these records are available for review by Liquidnet personnel as required in response to a regulatory inquiry or in connection with an internal review.

Supervisory process

Liquidnet supervisory personnel are required to certify on a monthly basis that any use of customer data within the supervisors business unit is in compliance with Liquidnet firm policy. Liquidnet personnel are only permitted to use customer data for the purpose of performing their respective business functions as described in the response to Item 7.d. of this Part II.

Trading Rules and Order Handling Q&A

The Liquidnet Trading Rules describe the various job functions within Liquidnet and the permitted access to and use of trading data by the employees performing each job function. Liquidnet employees are made aware of and required to comply with any limitations on access set forth in the Trading Rules. Such limitations are described in the response to Item 7.d. of this Part II. Supervisory personnel are required to monitor for compliance with these access limitations. These restrictions also are set forth in the Order Handling Q&A document, which Liquidnet updates on a quarterly basis and makes available to all participants.

Security and risk management department

Liquidnets Security and Risk Management (SRM) Department has responsibility for security and risk management functions at Liquidnet, which includes maintaining the security of customer trading information.

Pre-employment screening

Liquidnet conducts a pre-employment screening of employees for inconsistencies in application and resume information. After an offer is accepted, a criminal background screening may be conducted, subject to compliance with regulatory restrictions. All registered representatives must consent to a Pre-Registration Review.

Training and security awareness

SRM conducts onboarding and ongoing training for employees in Liquidnets information security policies and best practices.

System access controls

Liquidnet has instituted technological controls on access to trading information, including user name and password controls, secure remote access with two-factor authentication, access control lists on systems and networks, and network segmentation. These controls are evaluated on an annual basis by an external party, and included in an SSAE18 report and ISO 27001 certification, which are available to our participants and regulators.

Keycard controls and video surveillance

Liquidnets offices are equipped with keycard access controls and video surveillance. Liquidnets data centers are protected with a combination of keycard, biometric and video surveillance systems.

Monitoring of data transmission

All e-mail, web traffic and information copied to removable storage is monitored by a data leakage protection system, which provides alerts to the SRM Department should confidential information be detected in these communication channels.

Firewall and IDS protection

Liquidnets external network perimeters are protected by firewalls and intrusion detection systems. Liquidnet engages a third-party consultant to perform annual external network security assessments.

Liquidnet Transparency Controls

Liquidnet makes available to Members and buy-side customers a web-based system known as Liquidnet Transparency Controls. Liquidnet Transparency Controls allows Members and buy-side customers to view details about the liquidity sources with which they interact and the products and services they participate in that utilize their trading information. Members and buy-side customers use the tool to make elections relating to certain liquidity sources and products and services that access the participants trading information. See the response to Item 14 of Part III for additional detail regarding Liquidnet Transparency Controls.

Part II, Item 7.b.

Liquidnet Transparency Controls (described in the response to Item 7.a. of this Part II) involves two categories of settings: one category of setting relates to liquidity sources; the other category of setting relates to data usage. This response focuses on the settings in Liquidnet Transparency Controls that relate to data usage.

There are four settings in Liquidnet Transparency Controls that relate to data usage, as follows:

* ***Liquidnet community advertising.*** Liquidnet community advertising refers to any trade advertising that is limited to Liquidnet Members and customers. Examples of community trade advertising are advertising through Liquidnet 5, Liquidnet sales coverage, third-party EMSs and OMSs of Members and customers and Member and customer chat rooms. By default, Members and customers are opted-in to intra-day (including real-time) Liquidnet community advertising of their trades. Through Liquidnet Transparency Controls, Members and customers can opt-out of intra-day Liquidnet community advertising of their trades and instead opt-in to one of the following: end-of-day community advertising; or community advertising on T+21 (21 trading days after trade date).

* ***External trade advertising.*** External trade advertising refers to any trade advertising that is not limited to Liquidnet Members and customers. External trade advertising includes Bloomberg advertising. By default, Members and customers are opted-in to intra-day

(including real-time) external advertising of their trades. Through Liquidnet Transparency Controls, Members and customers can opt-out of intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. After T+20, LNI can disclose executed trades to current and prospective Members and customers, regardless of whether the parties to the trade have opted-in to community or external advertising.

* ***Execution Consultant*** *and Business Development personnel* ***access to execution data.*** By default, Execution Consultants and Business Development personnel can view all executions by the participants that they cover, regardless of the order type. A Member or customer can elect through Liquidnet Transparency Controls to restrict Execution Consultants and Business Development personnel to only view the Members or customers algo executions (including surge capture and residuals).

* ***Targeted invitations.*** A Qualifying Member elects whether to receive targeted invitations through Liquidnet 5. Participation in this functionality is subject to opting-in through Liquidnet Transparency Controls because the sender of a manual targeted invitation is notified whether there is at least one recipient for the targeted invitation. See the response to Item 15 of Part III for additional detail.

The only participants that can make elections through Liquidnet Transparency Controls are Members and customers. Brokers cannot make elections through Liquidnet Transparency Controls and cannot opt-out from intra-day Liquidnet community and external advertising, subject to the following exceptions:

* Transition managers can make elections through Liquidnet Transparency Controls
* For orders transmitted by a liquidity partner through a participant identifier that only permits principal orders, the liquidity partner can opt-out from intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. Liquidity partners can request either of these alternatives by contacting their trading coverage.

LNI defaults Liquidnet Capital Markets (LCM) customers to intra-day community and external advertising. LCM customers cannot opt-out from intra-day community advertising. LCM customers can opt-out from intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. LCM customers do not have access to Liquidnet Transparency Controls. LCM customers can request either of these alternatives by contacting their trading coverage.

Participants cannot opt-out from Liquidnet community advertising after T+20. In other words, after T+20, LNI can disclose any executions to any existing or prospective Member or customer.

Regardless of any opt-in, LNI does not identify the participant in any of the communications described above.

Part II, Item 7.d.

The following is a summary of the roles and responsibilities in Liquidnet that have access to trading information, the trading information that is accessible by the employees in these roles and the basis for the access. These employees can be located in the US or other Liquidnet regions, as Members and customers outside the US can trade US equities through the Liquidnet ATSs in an equivalent manner to US Members and customers.

A. Trade Coverage personnel (ATS sales coverage)

Roles and responsibilities

ATS Sales coverage personnel (also referred to as Trade Coverage personnel) sit on the Sales desk. Their role is to facilitate negotiations involving Members, monitor Member and customer orders that interact with the Liquidnet ATSs and respond to inquiries and diagnose issues. Trade coverage personnel can communicate real-time or historical Liquidnet trade execution data to Members, subject to compliance with participant Transparency Controls settings. Trade Coverage personnel can communicate real-time or historical public or readily-available execution data to Members; for example, to notify Members of the closing volume in a stock in the overall market for one or more prior days. Trade coverage personnel can provide transaction cost analysis reports to Members. Trade Coverage personnel can distribute reports relating to trade analytics prepared by other Liquidnet personnel as long as the analytics are not symbol-specific. Readily-available data means data that is available to industry participants through Bloomberg and similar subscription services. Trade Coverage personnel cannot execute Member or customer orders. Trade Coverage personnel provide services for the ATS portion of LNIs business.

Internal support tools

Through various internal support tools, Trade Coverage personnel can view: Members and customers live and broken match data (including potential match quantity); negotiation histories; Liquidnet algo, Liquidnet-only, LN auto-ex, automated negotiation and manual targeted invitation orders created by Members and customers; activity relating to specific Liquidnet products (such as targeted invitations); information relating to OMS placements; interaction between LNI and the Negotiation and H2O ATSs; and all trades executed by LNI. Trade Coverage personnel can view this information at the Member, customer and trader level. When a Trade Coverage representative can view a match through an internal support tool, the Trade Coverage representative can view both sides to the match.

Trade Coverage personnel can view the following information relating to the traders who access the H2O ATS: whether or not the trader is logged in; the traders current number of indications in the system and the shares and principal value represented by those indications; number, shares and principal value of outside and invalid indications; and the traders historical executed ADV through the system.

Member and trader performance and activity through Liquidnet

Trade Coverage personnel have access to reports on Member and trader performance and activity through the system, including positive action rates (PAR) and realization rates of individual Members and traders. 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. These 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 different order types.

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. These 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.

Transition of personnel from Trade Coverage to Execution Consultant or Business Development role

For a limited time period Trade Coverage personnel transitioning to an Execution Consultant or Business Development role can perform both functions on the same day but at different times of the day.

Sales supervisory personnel

Personnel with management and supervisory responsibility for Trade Coverage personnel have access to the same information available to the Trade Coverage personnel whom they supervise.

B. Execution and quantitative services personnel

Liquidnets Execution and Quantitative Services group (EQS) includes the following groups and functions:

* Trading Desk (high-touch coverage)
* Execution Consultants (low-touch coverage)
* Business Development
* Performance Analytics
* Liquidity Partnerships
* Algo Design and Research
* Best Execution analysis personnel
* Head of Trading Alpha.

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. In particular, in the APAC, EMEA and Canada regions, the same personnel can perform the Trading Desk and Execution Consultant functions. In the US, Execution Consultants can perform the Trading Desk function on a back-up basis. Execution and Quantitative Services personnel provide services for the non-ATS portion of LNIs business, and the same personnel can perform the Execution Consultant and Liquidity Partnership functions. APAC means Liquidnets Asia-Pacific region; EMEA means Liquidnets Europe, Middle East and Africa region.

C. Trading Desk personnel

Roles and responsibilities

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 customers 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 low-touch Member and customer algo orders and provide consultative support to Members and customers in connection with these orders.

Trading desk personnel provide services for the non-ATS portion of LNIs business.

Access to data

Through internal support tools, Trading Desk personnel can view execution information of Members and customers relating to their trading desk and algo orders. Trading Desk personnel can see whether trading desk orders were crossed by Liquidnet in one of its ATSs

or executed on an external venue. Trading Desk personnel can view whether an execution resulted from a targeted invitation.

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.

D. Execution Consultants

Roles and responsibilities

Liquidnets Execution Consultants are responsible for providing execution consulting services to Members and customers with a focus on Liquidnets algorithmic offering. This team also is responsible for providing various TCA (transaction cost analysis) reports for Members and customers. The Execution Consultants also monitor the performance of Liquidnets algos and recommend modifications, where appropriate, to improve algo performance. In real-time, Execution Consultants also can troubleshoot an algo order that is not performing properly, where instructed by a customer; troubleshooting can include modifying the parameters of the algo order. Execution Consultants can communicate real-time or historical Liquidnet trade execution data to customers, subject to compliance with participant Transparency Controls settings. Execution Consultants can provide trading analytics to customers. This includes providing a description of the analytics that the Execution Consultant is providing and distributing reports provided by other Liquidnet personnel. Execution Consultants provide services for the non-ATS portion of LNIs business.

Access to data

Through Liquidnets EMS, Execution Consultants can monitor all low-touch participant algo orders high-touch trading desk orders and provide consultative support to participants in connection with these orders.

Liquidnets Execution Consultants have access to one or more internal Liquidnet tools to conduct transaction cost analysis for the overall community and on behalf of individual participants. Execution consultants access such tools in connection with: evaluating and communicating the performance of the various Liquidnet algo types on an aggregated basis; and the generation of TCA reports for individual participants. These tools include all participant trade information on a real-time and historical basis, including target quantity with respect to parent orders and negotiation quantity (i.e., the quantity submitted during a negotiation) with respect to negotiated orders. Members and customers that do not want

Liquidnet 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.

Through other internal support tools, Execution Consultants can view all execution information of Members and customers and can view whether an execution resulted from a targeted invitation.

Through an internal support tool known as Touchpoint, Execution Consultants have access to all order and execution information of participants, regardless of order type, except that Execution Consultants cannot view manual negotiation, automated negotiation and manual targeted invitation orders. Through Touchpoint, Execution Consultants can run the algo ranking model for any low-touch algo order of a participant. A Member or customer can elect through Liquidnet Transparency Controls to restrict Execution Consultants (and Business Development personnel, as described in the next sub-section) to only view the Members or customers algo orders and executions (including surge capture and residuals).

E. Business Development personnel

Roles and responsibilities

Business Development personnel (also referred to as relationship managers) are responsible for selling the different Liquidnet products, including products available through the Liquidnet desktop application. Business Development can communicate real-time or historical Liquidnet trade execution data to customers, subject to compliance with participant Transparency Controls settings. Business Development can provide trading analytics to customers. This includes providing a description of the analytics that the Business Development is providing and distributing reports provided by other Liquidnet personnel.

Access to data

Business Development personnel have access to the same or equivalent data as Execution Consultant personnel, except that Business Development personnel do not have access to the Liquidnet EMS. A Member or customer can elect through Transparency Controls to restrict Business Development personnel to only view the Members or customers algo orders and executions (including surge capture and residuals).

F. Performance Analytics personnel

Roles and responsibilities

Liquidnets Performance Analytics personnel are responsible for providing tailored trade performance reports, analyses and consultation to Members and customers concerning the use and optimization of Liquidnets algos and other trading products. These personnel also

provide reports and analyses on community performance on an aggregate basis, as well as transaction cost analysis. Performance Analytics personnel provide services for the non-ATS portion of LNIs business.

Access to data

Performance Analytics personnel have access to all order and execution information on an intraday basis. They also have access, on a T+1 basis, to symbol-specific information concerning active and broken matches (including match quantity and time), indication and negotiation history (including outside indications and contra party), and targeted invitations.

Liquidnets Performance Analytics personnel have access to the same transaction cost analysis tools as described above for Execution Consultants.

Through other internal support tools, quantitative analytics personnel can view all execution information of Members and customers and all Member and customer algo order and execution information. Performance Analytics personnel also have access to all LNI order and execution information for model development and research.

Broken match data

Through a Liquidnet reporting tool, Performance Analytics personnel have access to data relating to broken matches. The purpose of this access is to enable Performance Analytics personnel to address Member queries relating to broken matches. For this purpose, matches can consist of matches with contra-indications and matches with contra-orders from Members and customers. Performance Analytics personnel can access all data relating to broken matches for this purpose, including:

* Begin match time
* End match time
* Symbol
* Information regarding the Members indication, including limit price, available quantity and quantity executed, at the begin and end match times
* Information regarding the contras indication or order, as applicable, including limit price, available quantity, order quantity, and quantity executed, at the begin and end match times.

A Members consent is required before Performance 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.

Performance Analytics personnel can provide their analysis to the requesting Member with respect to the match to which the Members query relates (but without providing any contra information) or with respect to the Members matches in general.

Targeted invitation analysis

In connection with providing analysis for surveillance monitoring of targeted invitations, Performance Analytics personnel have intra-day and historical access to the relevant details of targeted invitations sent by Members, including, symbol, create time, end time, side and quantity.

G. Liquidity partnerships personnel

Roles and responsibilities

Liquidnets liquidity partnerships personnel are part of EQS and have responsibility for managing LNIs relationships with LPs and ~~automated routing customers~~sponsored brokers. Liquidity partnerships personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

These personnel have access to symbol-specific information concerning orders transmitted ~~and executed by all~~ by LPs on a T+1 basis~~.~~ and executions by LPs on an intra-day basis. Liquidity Partnership (LP) personnel have access to information concerning targeted invitations from LP orders on an intra-day basis. ~~Liquidity partnership personnel also have access on a real-time and historical basis to aggregated (non-symbol specific) information on orders transmitted and executed by LPs 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. Liquidity partnership personnel also have access to symbol-specific, real-time information concerning Member and customer algo orders transmitted and executed through Liquidnets EMS, and they also review various reports for surveillance purposes.~~

Through various dashboards, Liquidity Partnership personnel also have access on a real-time and historical basis to aggregated (non-symbol specific) information on orders transmitted and executed by LPs and sponsored brokers over daily and monthly time periods, including execution volume, revenue from the broker, revenue from contras (without the contras being identified), average order size, average daily unique liquidity and firm-up rate on conditional orders. Average daily unique liquidity is computed based on order size but seeks to remove duplicate order volume in the same symbol and side for a particular day. Data is broken out by LP name, contra type (for example, broker block, automated routing order or algo order), capacity of the LP (for example, agent or principal), and type of order (for example, firm or

conditional, and algo or Liquidnet-only). Data relating to sponsored brokers is broken out based on the underlying Member or customer. Data is provided for the prior trading day or a longer prior period as selected by the user. Liquidity Partnership personnel in one region have access to this dashboard data for all regions. Liquidity Partnership personnel in all regions also have access to symbol-specific, real-time information concerning Member and customer algo orders transmitted and executed through InfoReach; they also review various reports for surveillance purposes.

H. Algo Design and Research personnel

Roles and responsibilities

Liquidnets Algo Design and Research personnel are responsible for the design, research and specification of LNIs algorithms, as well as related models and analytic signals used by LNIs algos. This team has responsibility for the design, research and specification of algorithms that provide best execution for Members and customers in accordance with Member and customer requirements and LNIs regulatory obligations. Product Support personnel can escalate production issues to this team for research and resolution. EQS personnel also may escalate to the Algo Design and Research team Member and customer queries relating to trading decisions made by LNIs algos. Algo Design and Research personnel provide services for the non-ATS portion of LNIs business.

Access to data

To facilitate these objectives, Liquidnets Algo Design and Research personnel have access to algo order information on a real-time and historical basis, including for algo orders created by Members through the desktop application, algo orders transmitted by customers from their EMS, and algo orders created by the Trading Desk. Algo Design and Research personnel also have access on a T+1 basis to symbol-specific information concerning all orders transmitted and executed by LPs. Algo order information includes executions, 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. Liquidnets Algo Design and Research personnel access this information through the LNI EMS, system logs and other internal real-time and historical reporting tools, including LNIs internal TCA tool (limited to algo order information). Liquidnets Algo Design and Research personnel cannot engage in trading activity and cannot modify any parameters of a Liquidnet algo order.

I. Best execution analysis personnel

Roles and responsibilities

One employee is responsible for preparing the data for Liquidnets monthly best execution meeting for the US and Canada. This employee generates aggregated (not symbol-specific) data for review by Liquidnets Best Execution Committee.

Access to data

When acting in this capacity, this employee has access to matched indication, order, execution and other trading information on a T+1 basis solely for purposes of preparing this aggregated data for review by the Committee. This employee is an Execution Consultant and Liquidity Partnership employee and can act as a Trading Desk employee on a back-up basis.

J. Commission Management Services personnel

Roles and responsibilities

Liquidnets Commission Management Services personnel are part of Liquidnets EQS and Member Services groups. Liquidnets commission management services include commission aggregation, commission analyzer and broker vote services. Commission management personnel provide services for the non-ATS portion of LNIs business.

Access to data

Liquidnets Commission Management Services personnel have access to all LNI trade and allocation information.

K. Head of Trading Alpha

Roles and responsibilities

The Head of Trading Alpha is responsible for the provision of analytics products and services to Liquidnets participants. In this capacity, the Head of Trading Alpha: oversees the Performance Analytics function; supervises Product personnel involved in the development of analytics products; communicates to customers on using analytics in their algo and other trading strategies; trains Liquidnet personnel on communicating to customers relating to analytics; and generates commentary to Liquidnet participants relating to Liquidnet and third-party trading analytics.

Access to data

The Head of Trading Alpha has access to Touchpoint (to the same extent as Execution Consultants), Helm, Liquidnet trading analytics, the user behavior analytics dashboard and reports prepared by Performance Analytics and Product personnel.

L. Sales Analytics group personnel

Roles and responsibilities

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 Liquidnets products and services as well as in support of Liquidnets 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 Liquidnets products and services. The Sales Analytics team is part of Liquidnets Sales group. Sales Analytics personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

Sales Analytics personnel have access to indication, order and trade information in the database and through internal reporting tools. 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 Liquidnets policies, to have access to the associated data. Sales Analytics personnel also have access to one or more internal TCA tools to run TCA reports for participants.

M. Product Support and Implementation personnel

Roles and responsibilities

Product Support and Implementation personnel are part of Liquidnets Member Services group. 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. Product Support and Implementation personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

Liquidnets 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 and customers. Product Support and Implementation personnel also have access to logs from each Members Liquidnet desktop trading 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 Members interface.

N. Trade Services personnel

Roles and responsibilities

Trade Services is part of Liquidnets Member Services group. Trade Services handles account set-up, trade allocations and trade settlement. Trade Support personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

Trade Services personnel have access to Member and customer execution, account, allocation and settlement information and the full quantity of any executed order.

O. LCM personnel

Roles and responsibilities

Liquidnet Capital Markets (LCM) personnel work on public issuer transactions for equities. 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 LNIs Members and customers. LCM customers do not have access to the Liquidnet desktop trading application; all listed shares transactions are facilitated through the LNI trading desk. LCM personnel provide services for the non-ATS portion of LNIs business.

General

LCM personnel do not have access to any Member or customer 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.

P. Enterprise Technology Services personnel

Roles and responsibilities

Liquidnets Enterprise Technology Services (ETS) group maintains the computers, networks, databases and connectivity that comprise the Liquidnet system. ETS personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

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 segment from other Liquidnet personnel for certain purposes.

Q. Software Development and Quality Assurance personnel

Roles and responsibilities

Software Development and Quality Assurance personnel are responsible for development, enhancement, and maintenance of the software components of the Liquidnet system. Software Development and Quality Assurance personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

These personnel have access to indication, order, execution and other trading information on a real-time basis in connection with the performance of their duties.

R. Product personnel

Roles and responsibilities

Liquidnets Product group is responsible for the design and enhancement of Liquidnets trading products. Product personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

Liquidnets Product personnel have access to indication, order, execution and other trading information for the products that they work on (for example, the Liquidnet desktop trading application, algos, TCA and commission management).

Product personnel can access and analyze trader usage data to enhance Liquidnets products. An example of analyzing trader usage data would be to identify the conditions under which a trader is more likely to respond to a targeted invitation.

Members of Liquidnets Product group 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 Liquidnets Product group have access to the EMS used by the LNI trading desk and Execution Consultants. This access is to assist LNI in responding to inquiries from Members and customers relating to system functionality in connection with day-to-day trading activity by Members and customers. Designated members of the Product group with responsibility for internal support tools have access to the same data as Member Services personnel.

S. Business Intelligence

Roles and responsibilities

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 Liquidnets products and services as well as in support of Liquidnets sales and marketing efforts. BI personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

BI personnel have access to indication, order, execution and other trading information in the Liquidnet database that includes all order and other trading information. 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 Liquidnets policies, to have access to the associated data.

T. Head of Data Science

Roles and responsibilities

Liquidnets Head of Data Science is responsible for designing the analytics in Liquidnets analytics products. The Heads of Algo Design and Research and Business Intelligence report to the Head of Data Science.

Access to data

The Head of Data Science has access to the information described below under Data that is not symbol-specific. He does not have access to symbol-specific ATS data.

T.U. Legal, Compliance and SRM personnel

Roles and responsibilities

Liquidnets Legal and Compliance personnel are responsible for working with the business units to establish and enforce Liquidnets legal and compliance policies. Compliance includes the Liquidity Watch monitoring and surveillance function. Liquidnets Security and Risk Management (SRM) personnel are responsible for working with the business units to establish and enforce Liquidnets policies relating to information security. Legal, Compliance and SRM personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

Liquidnets Liquidity Watch personnel have access to indication, order, execution and other trading information as well as commission aggregation information as part of their ongoing surveillance activity. Liquidnets Legal, Compliance and SRM personnel are permitted to access trading information in fulfilling their responsibilities, including for the conduct of investigations.

U.V.   Finance personnel

Roles and responsibilities

Designated members of Liquidnets Finance team have responsibility for accounts payable and receivable operations in connection with the operation of Liquidnets business. Finance personnel provide services for the ATS and non-ATS portions of LNIs business.

Access to data

As part of these responsibilities, these designated members of the Finance Department have access to trading information after the end of the trading day.

V.W.   Trading Analytics personnel

Roles and responsibilities

Trading analytics personnel (also referred to as analytics personnel) are involved in the development, sale and support of Liquidnets analytics products and services, including analytics provided through the Liquidnet desktop application, analytics provided through other software products developed by Liquidnet affiliates (including Best Ex Replay), and analytics provided by Liquidnet personnel through reports and individual or group communications, as described in the next sub-section. Trading Analytics personnel may be associated with LNI or an affiliate. Trading Analytics personnel provide support for the non-ATS portion of LNIs business.

Trading analytics

Liquidnet makes available to Members and customers analytics provided by one or more Liquidnet affiliates, including Liquidnet Technologies Europe Limited (LTEL). Liquidnet can make these analytics available through the Liquidnet desktop application. Sales and trading personnel can send analytics to Members and customers together with a description of the analytics being provided. Certain Liquidnet personnel can generate reports based on these analytics and third-party data and analytics and send these reports to Members and customers directly or through Liquidnet sales and trading personnel.

These analytics can include the following categories of data for a stock:

* performance
* spread
* trading volume
* volatility
* trading activity by control persons
* short interest
* posted liquidity.

The analytics described in this section are based on market-wide trading activity. Liquidnet sales and trading coverage personnel have access to these analytics. When providing analytics for a list of stocks or all of a participants indications through the Liquidnet desktop application, the analytics may identify outliers (for example, a stock with a recent significant price movement). Members and customers can maintain and receive analytics for one or more watchlists of stocks. With prior consent, Liquidnet sales and trading coverage personnel may also have access to a participants watchlists for purposes of providing consultative support.

Access to data

OAnalytics personnel have access to information relating to trader usage of the Best Ex Replay product and the analytics features of the Liquidnet desktop trading application. Discovery provides analytics to traders relating to individual stocks. Best Ex Replay provides analytics to traders to assist with best execution analysis. Action Stream provides notifications to a trader relating to a traders activity through the system or information that a trader could otherwise see or have seen through the Liquidnet desktop trading application. The analytics provided by Discovery are based on overall market activity and not based on Liquidnet-specific activity. The sending of analytics or a notification to a trader can be based on the indications provided by the traders firm to Liquidnet or the traders activity through Liquidnet.

In addition, product personnel can engage LTEL personnel to assist in conducting an analysis of trader usage data for other products. When performing this function, LTEL personnel are

provided access to trader usage data but without identifying trader or participant names. LTEL personnel access this data through Liquidnet systems.

Qtech

Liquidnet outsources development and support work relating to the LTEL analytics products (including Best Ex Replay) and other analytics provided through the Liquidnet desktop application to Qtech (UK) Limited, a UK-formed technology consulting firm, and its affiliate, Qtech Analytics Private Limited, a company organized in India (Qtech India). Qtech personnel work in London and in India. Qtech employees work in a data center in India that includes employees of MSBC Group (Qtech Indias parent company) and employees of other companies owned by MSBC. Qtech employees can access information relating to Liquidnet and LTEL analytics products and participant usage of such products in connection with their development and support roles. Qtech support personnel can access indication information for all indications of Members that are enabled for Action Stream or trading analytics through the Liquidnet desktop application. This data is recorded on specific servers to which Qtech personnel have access; these servers are located in Liquidnet data centers in the US and Europe. These servers also record indication information of a participant during any period of time when a participant has the blotter window open in Liquidnet 5, even if the participant is not enabled for Action Stream or trading analytics through the Liquidnet desktop application. The data above includes Member and user names. Qtech personnel may provide development and support services for other companies owned by MSBC Group and their clients.

W.X.   Management personnel access to aggregated liquidity information

To assist Liquidnets Corporate Leadership and Sales management personnel in evaluating Liquidnets 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 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 Members OMS or other indication quantity communicated by a Member to Liquidnet. Management personnel provide services for the ATS and non-ATS portions of LNIs business.

X.Y.   Aggregated data

In addition to the above, Liquidnet can provide trading data to employees where the data is not symbol-specific. In particular, Liquidnet can provide trading data to any employees broken out by the following categories and similar aggregated categories: country; sector; index and market cap (e.g., large, mid, small and micro). This data is used for business planning, sales and marketing purposes.

Y.Z.   Salesforce CRM system

Liquidnet personnel, other than LCM personnel, have access to the primary version of Liquidnets Salesforce CRM (customer relationship management) system. Liquidnets CRM system contains standard CRM information relating to participants, including participant contact information, participant actual and target revenue information, participant trading volume information (not symbol-specific), the status of support incidents, and reports on participant meetings and calls. Through Salesforce, Liquidnet personnel can receive alerts relating to participant PAR, realization rate and similar performance metrics; these metrics are not symbol-specific. The CRM system does not contain symbol-specific information, but users can enter specific symbols into the CRM in connection with the resolution of trade errors and other trading incidents. LCM personnel have access to a separate instance of Salesforce specifically created for the LCM team containing standard CRM information relating only to LCM customers, including contact information, the status of support incidents, and reports on LCM customer meetings and calls.

Z.AA.   Helm

Through Helm, an internal Liquidnet support tool, Liquidnet sales and trading personnel have access to Member and customer configuration settings in order to respond to Member and customer requests. These settings include Member and customer names, user names (including trader names), Transparency Controls settings and whether a Member or customer is enabled for specific Liquidnet products such as trading analytics, targeted invitations, or Liquidnet algos. Personnel can view Member and customer settings for all regions and users. Helm does not contain trading data.

BB.   Internal dashboards

Through various internal dashboards, Liquidnet personnel and their supervisors have access to the following:

* Data that they are otherwise authorized to view based on their function, as expressly described in the specific section above relating to their specific function.
* Data that is not symbol-specific relating to revenue, volume and product usage. This data can be broken out by Member or customer and individual trader. This data can include data described below that is not symbol specific.

CC.   Data that is not symbol-specific

Liquidnet personnel in the following departments have access to data relating to customer and trader activity through Liquidnet that is not symbol specific (non-symbol data): Business Development; Business Intelligence; Commission Management; Compliance; Corporate Leadership; ETS; Execution and Quantitative Services (including Algo Design and Research; Execution Consultants, Performance Analytics, Liquidity Partnerships personnel, and the

Head of Trading Alpha); Finance; Head of Data Science; Product; Product Support; Sales Analytics; Technology; Trade Coverage; Trade Services and Trading Analytics.

Non-symbol data provides information on individual Member and trader usage of Liquidnets trading and analytics products, including the frequency of specific actions taken by a Member or trader through the system. The following are examples of these actions: accessing the blotter screen; right-clicking on a symbol in the blotter screen; accessing the analytics monitor; receiving a match popup; right-clicking on a match tile; right-clicking on an analytics monitor bubble; and clicking in an analytics window. An internal user can further filter this data based on the category of analytics alert (for example, performance, short interest or valuation). The non-symbol data also includes per trader and Member information on indications made available to Liquidnet and associated events, including number of indications, number of unique symbols, total principal value of indications, total indication shares, average indication duration, resulting matches, resulting matches executed, average match reaction time, average order resting time. The non-symbol data also includes data relating to orders and resulting executions. Liquidnet provides certain restrictions on an employees access to non-symbol data based on the employees role.

A. ~~User Behavior Analytics Dashboard~~

~~Liquidnet personnel in the following departments have access to a user behavior analytics dashboard (currently referred to as the UBA Dashboard): Business Development; Business Intelligence; Compliance; Corporate Leadership; Execution and Quantitative Services (including Execution Consultants, Performance Analytics and the Head of Trading Alpha); Finance; Product; Sales Admin; and Trade Coverage.~~

~~The UBA Dashboard provides information on individual Member and trader usage of Liquidnets trading and analytics products, including the frequency of specific actions taken by a Member or trader through the system. The following are examples of these actions: accessing the blotter screen; right-clicking on a symbol in the blotter screen; accessing the analytics monitor; receiving a match popup; right-clicking on a match tile; right-clicking on an analytics monitor bubble; and clicking in an analytics window. An internal user can further filter this data based on the category of analytics alert (for example, performance, short interest or valuation). The report also shows per trader and Member information on indications made available to Liquidnet and associated events, including number of indications, number of unique symbols, total principal value of indications, total indication shares, average indication duration, resulting matches, resulting matches executed, average match reaction time, and average order resting time. The UBA Dashboard does not provide symbol-specific data. Certain data is restricted in the UBA Dashboard based on an employees role.~~