

### Exhibit 3

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

#### **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 also providedistribute reports relating to trading analytics to Members and customers, butprepared by other Liquidnet personnel as long as the analytics are not symbol-specific analytics may not be provided during regular market hours. 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 LNI's 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 LNI's 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. Execution Consultants can also view all targeted invitations sent from algo orders and LN auto-ex orders of participants in all primary regions that they cover, including any recipient who received a targeted invitation based on the recipients historical orders or executions. This visibility is subject to the senders and recipients Transparency Controls settings relating to Execution Consultant access to order and execution data, as applicable. Execution Consultants cannot view senders or recipients of manual targeted invitations or any recipient of an automated targeted invitation who received that targeted invitation based solely on the recipients historical indications.

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 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 LNI's 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 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 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.

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 analyses and commentary to Liquidnet participants relating to Liquidnet and third-party trading analytics.

### ***Access to data***

The Head of Trading Alpha has access to intraday orders, executions and targeted invitations (including participant identities)~~Touchpoint (to the same extent as Execution Consultants),~~ Helm, Liquidnet trading analytics, Data that is not symbol specific (as described below)~~the user behavior analytics dashboard~~ and reports prepared by Performance Analytics, Business Intelligence and Trading Analytics~~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 LNI's 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***

Liquidnet's Product group is responsible for the design and enhancement of Liquidnet's trading products. Product personnel provide services for the ATS and non-ATS portions of LNI's business.

### ***Access to data***

Liquidnet's 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 Liquidnet's 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 Liquidnet's 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 Liquidnet's 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.

## **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 LNI's 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.

### **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 LNI's 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.

### **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 [AnalysisReplay](#)), 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 LNI's 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, [a Members or customers EMS and/or via API](#). 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 participant's 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 [\(including Trade Coverage, Business Development, and Execution Consultant personnel\)](#) may also have access to a participant's watchlists for purposes of providing consultative support.

[Liquidnet, in its sole discretion, determines whether to make any trading analytics available to a Member or customer and, if so, under what conditions. These conditions may include Liquidnet charging a fee for the service.](#)

### ***Access to data***

Analytics personnel have access to information relating to trader usage of the Best Ex ~~AnalysisReplay~~ product and the analytics features of the Liquidnet desktop trading application. ~~Discovery provides, including~~ analytics ~~provided~~ to traders relating to individual stocks. Best Ex ~~AnalysisReplay~~ provides analytics to traders to assist with best execution analysis. ~~Liquidnet may also~~ ~~Action Stream~~ provides notifications to a trader relating to a trader's 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 ~~LiquidnetDiscovery~~ 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 trader's firm to Liquidnet or the trader's 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 ~~Liquidnets~~~~TEL~~ analytics products (including Best Ex ~~Analysis~~~~Replay~~) and other analytics provided through the Liquidnet desktop application ~~and other means~~ 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 Liquidnets and ~~affiliates~~~~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 support function may include Qtech personnel assisting with the creation of a watchlist of specific securities at a Members request based on the Members prior indications. 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 ~~the desktop application~~~~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. With prior authorization, Qtech personnel may also access historical trading information, including indication data, to assist Liquidnets Software Development and Business Intelligence teams with other development projects on an as-needed basis. Qtech personnel may provide development and support services for other companies owned by MSBC Group and their clients.

### **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.



## **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.

## **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.

### **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.