



*Broker Liquidity Provider to
Liquidnet Integration*

*FIX Message Workflow
Version 4_6-8.2*



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1 Introduction

This document describes the use of the Financial Information eXchange™ (FIX) protocol as it is deployed by a Broker Liquidity Partner (Partners) and Liquidnet to integrate with each other. A sound knowledge of the FIX Protocol is assumed as this document does not cover the behavior in detail. Please refer to <http://fixprotocol.org/> for further details.

To accomplish this integration, the following are detailed:

- **Order Availability to Stream:** In order to inform brokers' routers when handling time-sensitive (marketable, streaming orders) Partners will receive data via a FIX Indication of Interest (IOI) when a Liquidnet Member has approved stream interaction on an order:
 - **IOIs:** Liquidnet sends IOI messages throughout the day when liquidity becomes stream-eligible for a given symbol.
 - Liquidnet does not send messages indicating block liquidity.
- **Orders:** In order to access the liquidity indicated by an IOI, Partners send a New Order – Single (NOS) message to Liquidnet with an actionable limit price or a market order and a Time in Force code of Immediate or Cancel (IOC) or Fill or Kill (FOK). Time in Force equal to "DAY" is supported for those Partners certified for Blocks.
- **Acknowledgements and Executions:** Liquidnet responds immediately to NOS messages with an Execution Report to acknowledge the receipt of an order. In the event of a trade, Liquidnet sends Execution Reports corresponding to the state of the order until it is filled, canceled, or the market closes. An Execution Report is always sent, even if the order cannot be filled.
- **Cancel Replace:** A client may edit an order by sending Liquidnet a Cancel Replace Request. If the request can be processed, Liquidnet replies with an execution report (Status = Pending Cancel) followed by an execution report (Status = Replaced) indicating the successful replacement of the order. Liquidnet will subsequently send an execution report(s) indicating the partial or complete fill of the order. If the Cancel Replace request cannot be processed, Liquidnet sends an Order Cancel Reject message with the appropriate status.
- **Cancel Requests and Replies:** A Partner may cancel a Liquidnet Block order by sending Liquidnet a Cancel Request. If the request can be processed, Liquidnet replies with a UROut (Execution Report with order status = CANCELED). If the request cannot be processed, Liquidnet sends a Cancel Reject message with the corresponding reason code.
- **Error handling:** As error conditions and exceptions arise during the course of normal operation, Partners can send Don't Know (DK) and Reject messages to



cancel transactions in an invalid state. As noted later in this specification, these instances are resolved through a manual process.

- **Sample Message Workflows:** Workflow examples indicating how FIX is used within the integration between a Partner and Liquidnet.

Note: Liquidnet supports both versions 4.0 and 4.2 of the FIX protocol (with a strong preference for 4.2). This specification covers both versions, identifying where the FIX Message workflow is different for each version.

2 Order Availability

Liquidnet utilizes the IOI message workflow for communicating order information to Partners, thereby facilitating those Partners compliance with our business rules regarding Stream interaction.

2.1 Indication of Interest Message Workflow

Liquidnet transmits Indications of Interest (IOIs) to convey when liquidity is Stream-available for a given side and symbol combination.

1. Each Partner FIX configuration should permit the acceptance of IOIs to indicate that Liquidnet has orders open for a particular symbol.
2. IOI messages do not have a corresponding request message. IOIs will be transmitted to Partners as liquidity becomes available in a given side/symbol throughout the trading day.
3. Once an IOI is received by the Partner, a qualifying order may then be sent to Liquidnet for execution. Liquidnet should receive orders only for those side/symbol combinations for which an IOI has been sent.
4. As liquidity reduces or increases within Liquidnet, an IOI message with status indicator of "new" will be sent to update Partners as to the revised quantities.

Liquidnet sends the following fields in the IOI message:

Tag	Field Name	Req'd by FIX	Sent By LN	Comments
	Standard Header	Y	Y	MsgType = 6
23	IOI	Y	Y	Liquidnet sends an IOI identifier that remains unique throughout the trading day.
28	IOITransType	Y	Y	Liquidnet always sends IOIs as "New" with the value for this tag set to "N". Liquidnet will not send "Cancel" or "Replace" IOIs.
55	Symbol	Y	Y	Liquidnet sends the standard exchange ticker symbol in this field. RIC will be sent for non-US symbols
65	SymbolSfx	N	N	This is used to further identify a security type and provides additional information about the security (e.g., preferred, warrants, etc.). If applicable, Liquidnet sends the Symbol Suffix in this field. For example, if the symbol is VIA.B, then tag 65 = B This does not apply to non-US symbols.



Tag	Field Name	Req'd by FIX	Sent By LN	Comments
54	Side	Y	Y	Liquidnet transmits the side of an Indication as follows: 1 = Buy 2 = Sell
27	IOIShares	Y	Y	Liquidnet indicates the minimum number of shares currently available to trade in this field.
25	IOIQltyInd	N	Y	Liquidnet always provides the value "H" in Tag 25, indicating that the Indication is of "High" quality.
104	IOIQualifier	N	Y	Liquidnet always provides the value "X" in Tag 104, indicating a Crossing Opportunity.
130	IOINaturalFlag	N	Y	Liquidnet always provides the value "Y" in tag 130, indicating that the order is a natural and the result of Agency trading.
15	Currency	N	Y	Sent only for non-US orders.
48	SecurityID	N	Y	SEDOL sent only for non US orders
22	IDSource	N	Y	The value for this tag will be set to "2" (SEDOL) and is sent only for non US orders.
207	SecurityExchange	N	Y	Identifies the exchange of the security. Sent only for non-US orders for FIX 4.2 sessions.
100	ExDestination	N	Y	Identifies the Security Exchange. Sent only for non-US orders for FIX 4.0 sessions.
	Standard Trailer	Y		

3 Orders, Acknowledgements, and Executions

Partners should send a FIX New Order - Single message to Liquidnet when they wish to access liquidity. Liquidnet supports three types of orders: IOC, FOK and DAY.

- **For IOC orders:** Liquidnet responds immediately with an Execution Report (Status = NEW) followed by an additional Execution Report indicating if the order has been completely filled, partially filled, or if the order has not been filled at all.
- **For FOK orders:** Liquidnet responds immediately with an Execution Report (Status = NEW) followed by an additional Execution Report indicating if the



order has been completely filled or if the order has not been filled at all. An order with a TIF of FOK will not be partially filled.

- **For DAY orders:** Partner must be approved for trading Blocks. Liquidnet responds immediately with an Execution Report (Order Status = NEW), indicating that the order has been acknowledged. Subsequent Execution Reports indicate the status of the order (PARTIALLY FILLED or FILLED) until the order is filled, canceled, or until the market closes. If the order is canceled or the market closes before the order is filled, Liquidnet can send an Execution Report (Status = DONE FOR DAY or CANCELED) upon request.

3.1 New Order – Single Messages

Structure of the order message follows:

- Valid Time in Force (TIF) codes are IOC, FOK and Day (provided the Partner is enabled for Blocks trading). All orders containing any other TIF values will be rejected.
- The OrdType for IOC/FOK orders can be Market or Limit. OrdType for Day orders can be Market or Limit/Pegged to Mid with a Price specified. An order with an OrdType other than Market, Limit or Pegged will be rejected.
- The OATS Order ID must be reported in either Tag 11 or Tag 109. Required for US orders only..
- DAY orders must satisfy the per symbol minimum order quantity. Orders with quantities less than this threshold will be rejected. Day Orders are subject to additional restrictions listed in Appendix A.
- For non-US orders, Liquidnet requires the following fields to resolve the security and its market:
 - A currency code in tag 15
 - The Security ID in tag 48
 - The ID Source in tag 22
 - The exchange code in tag 100 for FIX 4.0 or in tag 207 for FIX 4.2 sessions

Orders will be rejected if the security cannot be uniquely resolved.

- Support for MinQty (Tag 110) is only implemented for DAY orders. Tag 110 will be ignored if received in a NOS with TIF other than DAY.

Liquidnet processes the following fields in a New Order Single message:

Tag	Field Name	Req'd by FIX	Req'd by LN	Comments
	Standard Header	Y	Y	MsgType = D
11	ClOrdID	Y	Y	Unique identifier for the order can also be used as OATS Order ID for US orders.
1	Account	N	N	Account, as assigned by institution and if present, will be echoed back.
21	HandlInst	Y	Y	Liquidnet requests a value of 3.
55	Symbol	Y	Y	Reuters Standard Ticker Symbol, RIC, or ILX Standard Ticker Symbol. For non-US orders, this field should contain the RIC or the Security ID type that is preferred by the Partner.
48	SecurityID	N	Y	Unique Identifier for Security. Required only for non-US orders and identified through the value in tag 22.
22	IDSource	N	Y	Required for non-US orders. Liquidnet will accept one of the following: 1 = CUSIP 2 = SEDOL 4 = ISIN Number 5 = RIC Code
54	Side	Y	Y	Liquidnet will accept one of the following: 1= Buy 2= Sell 5= Sell Short 6= Sell Short Exempt (only for US orders)
114	LocateReqd	N	Y	Required for short sell and short sell exempt orders. Value must = 'N'
38	OrderQty	Y	Y	The number of shares to be executed with Liquidnet.
40	OrdType	Y	Y	1 = Market 2 = Limit. (Day orders must be limit types.) P = Pegged Order (Only for TIF of "Day")
44	Price	N	Y	Required for limit and Pegged OrdTypes.
18	ExecInst	Y	Y	"M" Required when <40>=P
15	Currency	N	Y	A message without a value in the Currency field is interpreted as US dollars. Required for non-US orders.
59	TimeInForce	N	Y	All orders must be designated type "0" for Day, type "3" for Immediate or Cancel (IOC) or type "4" for Fill or Kill (FOK). The absence of this field indicates a Day order.
60	TransactTime	Y	Y	The time of the message. Required for FIX 4.2 sessions.



Tag	Field Name	Req'd by FIX	Req'd by LN	Comments
207	SecurityExchange	N	Y	Identifies the exchange of the security and is required for non-US orders for FIX 4.2 sessions only.
100	ExecDestination	N	Y	Identifies the exchange of the security and is required for non-US orders for FIX 4.0 sessions only.
110	MinQty	N	N	Minimum quantity of an order to be executed
	Standard Trailer	Y		

3.2 Execution Reports

Execution Report messages are sent for the following reasons:

- To inform a Partner that an order has been received by Liquidnet. This is used as an acknowledgement and it is an optional configuration (i.e. Partners can specify whether or not Acknowledgement messages are required), tag 39 OrdStatus=New.
- To inform an Partner that the order is completely filled, tag 39 OrdStatus = Filled.
- To inform an Partner that the order is partially filled (IOC only), tag 39 OrdStatus = Partial.
- To inform an Partner that no further executions are expected for their IOC/FOK order. For IOC orders, this message would immediately follow a partial execution report. This message can contain tag 39 OrdStatus=DoneForDay or OrdStatus=Cancel.
- To inform an Partner that their Block (or Day) order is canceled at their request. This is also known as a "UROut" message, tag 39 OrdStatus = Cancel.
- To inform an Partner that the order does not meet business validation and as such is rejected by Liquidnet, tag 39 OrdStatus = Rejected.

Commission

- For certain order types and or markets, Liquidnet may charge a commission to the Partner upon execution.
- For executions where a commission is applicable, tags 12 & 13 will be included. If a commission is not applicable, tags 12 & 13 will be omitted.



Tag	Field Name	Req'd by FIX	Sent By LN	Comments
	Standard Header	Y	Y	MsgType = 8
37	OrderID	Y	Y	The Order ID sent by Liquidnet will be unique for the day.
11	ClOrdID	N	Y	Sent By Liquidnet and refers to the ClOrdId that Partners send in the New Order - Single message.
76	ExecBroker	N	Y	Liquidnet uses broker codes such as: "LQNT" for US, "LNEL" for Europe, "LNAL" for Asia, "LNJP" for Japan, "LNCA" for Canada, "LNAU" for Australia.
17	ExecID	Y	Y	ID for execution report message which is always unique within the span of a single trading day.
20	ExecTransType	Y	Y	Liquidnet always specifies "0 = New Execution" message.
150	ExecType	Y	Y	Indicates the status of the execution. Liquidnet sends Execution report messages with one of the following status codes: 0 = New 1 = Partial Fill 2 = Fill 3 = Done for Day 4 = Canceled 8 = Rejected Required for FIX 4.2 sessions.
39	OrdStatus	Y	Y	Indicates the status of the order. Liquidnet sends execution report messages with one of the following status codes: 0 = New 1 = Partial Fill 2 = Fill 3 = Done for Day 4 = Canceled 8 = Rejected
1	Account	N	Y	Liquidnet will echo the value received in NOS message
55	Symbol	Y	Y	Liquidnet will echo the value received in NOS message
65	SymbolSfx	N	Y	Liquidnet will echo the value received in NOS message
48	SecurityID	N	Y	Liquidnet will echo the value received in NOS message
22	IDSource	N	Y	Liquidnet will echo the value received in NOS message



Tag	Field Name	Req'd by FIX	Sent By LN	Comments
54	Side	Y	Y	Liquidnet will echo the value received in NOS message
38	OrderQty	Y	Y	Liquidnet will echo the value received in NOS message
40	OrdType	N	Y	Liquidnet will echo the value received in NOS message
44	Price	N	Y	Liquidnet will echo the value received in NOS message
18	ExecInst	N	Y	Liquidnet will echo the value received in NOS message
15	Currency	N	Y	Liquidnet will echo the value received in NOS message
59	TimeInForce	N	Y	Liquidnet will echo the value received in NOS message
32	LastShares	Y	Y	The quantity of shares traded in this fill.
31	LastPx	Y	Y	The price of the shares traded in this fill.
151	LeavesQty	Y	Y	The quantity of shares open for further execution. Required for FIX 4.2 sessions.
14	CumQty	Y	Y	The cumulative quantity of shares executed for the referenced order.
6	AvgPx	Y	Y	The average price of shares executed for the referenced order.
12	Commission	N	Y/N	Commission amount will only be sent on applicable executions. If not applicable for the execution, this tag will be omitted. Note: if CommType is percentage, Commission of 5% should be represented as .05.
13	CommType	N	Y/N	Commission Type will only be sent on applicable executions. If not applicable for the execution, this tag will be omitted. Commission type valid values: 1 = per share 2 = percentage
60	TransactTime	N	Y	The time of the execution. Required for FIX 4.2 sessions.

Tag	Field Name	Req'd by FIX	Sent By LN	Comments
110	MinQty	N	Y	Liquidnet will echo the value received in NOS message
58	Text	N	Y	Liquidnet will use this field to supply order reject reason, i.e. "Order must be a limit type (tag 40) "
	Standard Trailer	Y	Y	

4 Cancel Request and Response

In the event that a Partner wishes to cancel an outstanding Block (Day) order with Liquidnet, they may do so by sending a Cancel Request. If the cancel is successfully processed, Liquidnet responds with an execution report (Status = Pending Cancel) followed by execution report (Status = Canceled) indicating the final number of shares filled. If the cancel request cannot be processed, Liquidnet sends a Cancel Request Reject message and processing continues.

4.1 Cancel Request

Tag	Field Name	Req'd by FIX	Req'd by LN	Comments
	Standard Header	Y	Y	MsgType = F
41	OrigCLOrdID	Y	Y	CLOrdId of the order to be canceled.
11	CLOrdID	Y	Y	Unique ID of the cancel request as assigned by the Partner.
55	Symbol	Y	Y	Ticker symbol.
54	Side	Y	Y	For example, Buy, Sell, Short
60	TransactTime	Y	Y	Time of request. Required for FIX 4.2 sessions.
	Standard Trailer	Y	Y	

4.2 Cancel Response (Canceled)

If the request is successfully processed, Liquidnet will respond with an Execution Report OrdStatus = Canceled as indicated in section 3.2 of this document, with tag 39=4.



4.3 Cancel Response (Cancel Rejected)

If the Cancel request cannot be processed (e.g., too late to cancel), Liquidnet responds with the following message:

Tag	Field Name	Req'd by FIX	Sent by LN	Comments
	Standard Header	Y	Y	MsgType = 9
37	OrderID	Y	Y	The Order ID supplied in the NOS message.
11	ClOrdID	Y	Y	Unique ID of the Cancel Request as assigned by the Partner.
41	OrigClOrdID	Y	Y	ClOrdId of the order to be canceled.
39	OrdStatus	Y	Y	Status of the order after the cancel reject is applied (i.e., New, Partial Fill).
434	CxlRejResponseTo	N	Y	Identifies the type of request this message is responding to (i.e., 1 - CancelRequest). Required for FIX 4.2 sessions.
58	Text	N	Y	Liquidnet will use this field to supply the order reject reason.
	Standard Trailer	Y	Y	

5 Cancel Replace and Response

In the event that a Partner wishes to change an outstanding Block (Day) order with Liquidnet, they may do so by sending a Cancel/Replace request. If the Cancel/Replace is successfully processed, Liquidnet responds with an execution report (Status = Pending Replace) followed by an execution report (Status = Replaced) indicating the successful replacement of the order. Liquidnet will subsequently send an execution report(s) indicating the partial or complete fill of the order. If the Cancel/Replace request cannot be processed, Liquidnet sends a Replace Reject message with the appropriate status.

Tag	Field Name	Req'd by FIX	Req'd by LN	Comments
	Standard Header	Y	Y	MsgType = G
41	OrigClOrdID	Y	Y	ClOrdId of the order to be Replaced.
11	ClOrdID	Y	Y	Unique ID of the cancel/replace request as assigned by the Partner.
40	OrdType	Y	Y	Can be edited to Market, Limit or Pegged
55	Symbol	Y	Y	Must match original Symbol
21	HandlInst	Y	Y	Must match original HandlInst
38	OrderQty	N	Y	Can be edited up or down to 1 share above current quantity
44	Price	N	Y	Can be edited
54	Side	Y	Y	Must match original side.
110	MinQty	N	N	Can be edited down or up to the OrderQty. If exceeds OrderQty, Cancel Replace will be rejected.
60	TransactTime	Y	Y	Time of request. Required for FIX 4.2 sessions.
	Standard Trailer	Y	Y	



5.1 Cancel/Replace Response (Cancel/Replace Rejected)

If the Cancel/Replace request cannot be processed (e.g., the order has been filled or too late to cancel), Liquidnet responds with the following message:

Tag	Field Name	Req'd by FIX	Sent by LN	Comments
	Standard Header	Y	Y	MsgType = 9
37	OrderID	Y	Y	The Order ID supplied in the NOS message.
11	ClOrdID	Y	Y	Unique ID of the Cancel Request as assigned by the Partner.
41	OrigClOrdID	Y	Y	ClOrdId of the order to be canceled.
39	OrdStatus	Y	Y	Status of the order after the cancel reject is applied (i.e., New, Partial Fill).
60	TransactTime	N	Y	Time of execution creation expressed in UTC
434	CxlRejResponseTo	N	Y	Identifies the type of request this message is responding to (i.e., 2 – Cancel/Replace Request). Required for FIX 4.2 sessions.
58	Text	N	Y	Liquidnet will use this field to supply the order reject reason.
	Standard Trailer	Y	Y	

6 Exception Handling

6.1 Don't Know Trade (DK)

Should Liquidnet receive a DK message on an execution, Liquidnet Member Services will contact the Partner for manual reconciliation. Liquidnet does not electronically process DK messages.

An Execution Report can be rejected for the following reasons:

- The Execution Report cannot be matched to a valid, open order.
- The symbol is unknown.
- The side of the order is incorrect.
- The quantity executed exceeds the quantity ordered.
- The price exceeds the limit of the order.

Liquidnet will read the following fields in the DK message:

Tag	Field Name	Req'd by FIX	Req'd by LN	Comments
	Standard Header	Y	Y	MsgType = Q
37	OrderID	N	Y	Broker's Order ID identified on the problem execution. Required for FIX 4.2 sessions.
17	ExecID	N	Y	Execution ID of problem execution. Required for FIX 4.2 sessions.
127	DKReason	Y	Y	A = Unknown symbol B = Wrong Side C = Quantity exceeds order D = No matching order E = Price exceeds limit Z = Other
55	Symbol	Y	Y	Should match symbol from NOS.
54	Side	Y	Y	The side of the order. 1 = Buy 2 = Sell 5 = Sell Short 6 = Sell Short Exempt (only for US orders)
38	OrderQty	Y	Y	Quantity of shares ordered.
32	LastShares	Y	Y	Quantity of shares traded in the execution that is rejected in this message.
31	LastPx	Y	Y	Price of shares traded in the execution that is rejected in this message.



Tag	Field Name	Req'd by FIX	Req'd by LN	Comments
58	Text	N	N	If Tag 127 = Z, please define DK reason in this field.
	Standard Trailer	Y	Y	

6.2 Reject Messages

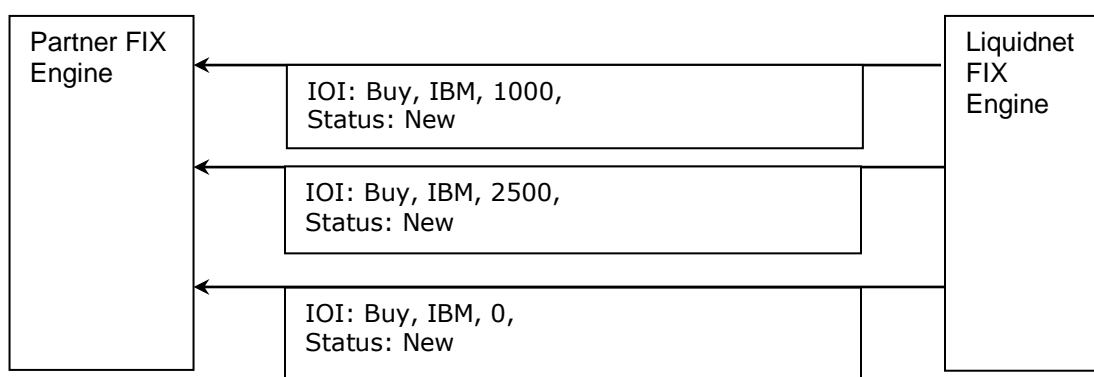
Occasionally FIX messages are sent/received that might be malformed. In these instances, Liquidnet will send and expects to receive a Session Level reject message as per the FIX Protocol standards.

7 Sample Message Workflows

The following workflow examples indicate how FIX is used within the integration between an Partner and Liquidnet.

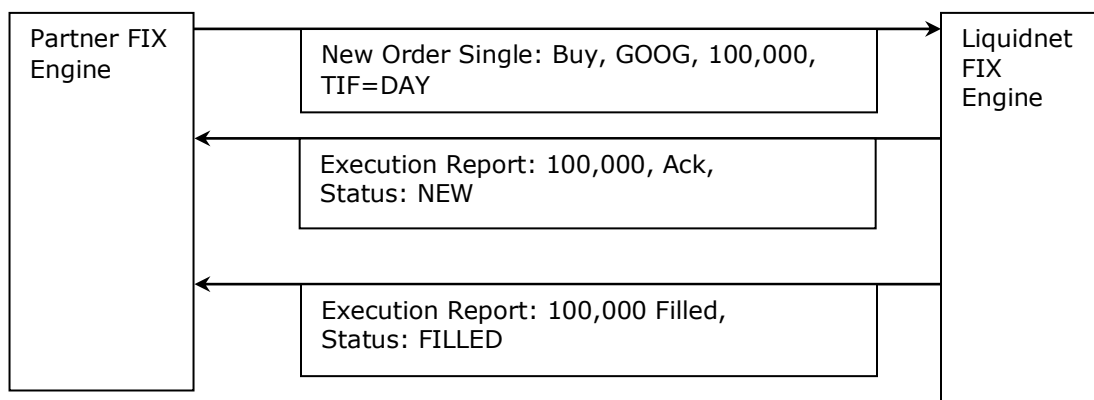
7.1 IOI Messages

Liquidnet sends IOI Messages throughout the day when liquidity becomes Stream-available and is updated throughout the day as it changes.



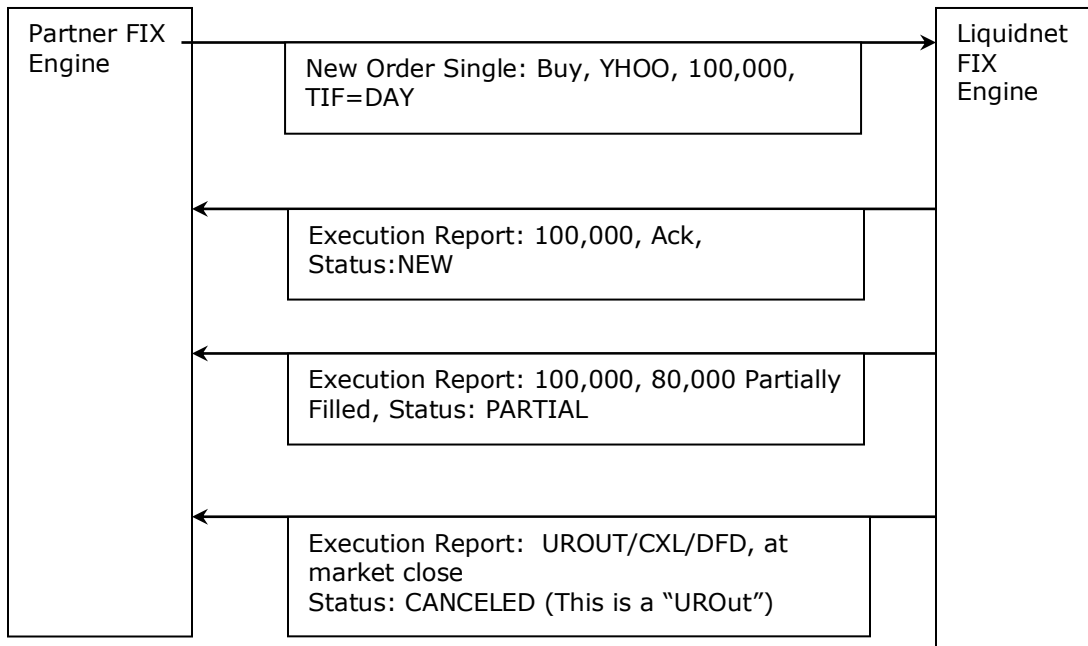
7.2 Day Order, Full Execution

The Partner configured for H2O Blocks places a day order for 100,000 shares of GOOG. Liquidnet acknowledges and fills the order.



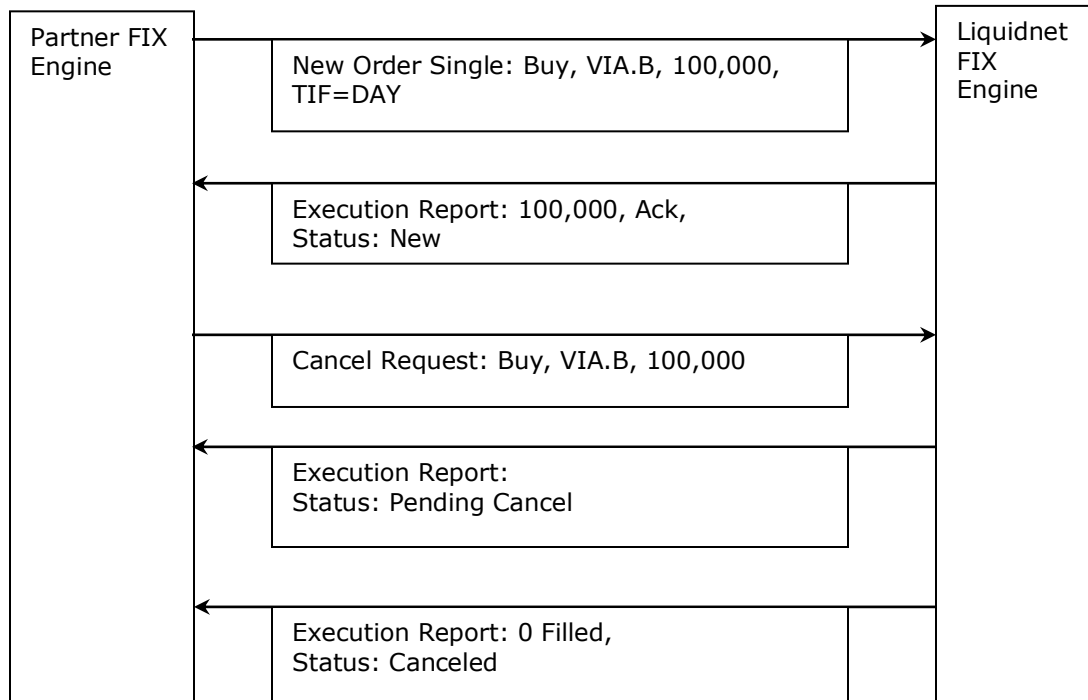
7.3 Day Order, Partial Execution, UROut

The Partner configured for H2O Blocks places a day order to buy 100,000 shares of YHOO. Liquidnet acknowledges. 80,000 shares are available and Liquidnet partially fills the order. The Block (Day) order remains open on the Liquidnet system until it is either canceled or the market closes at which point a UROut (an unsolicited cancel) will be sent.



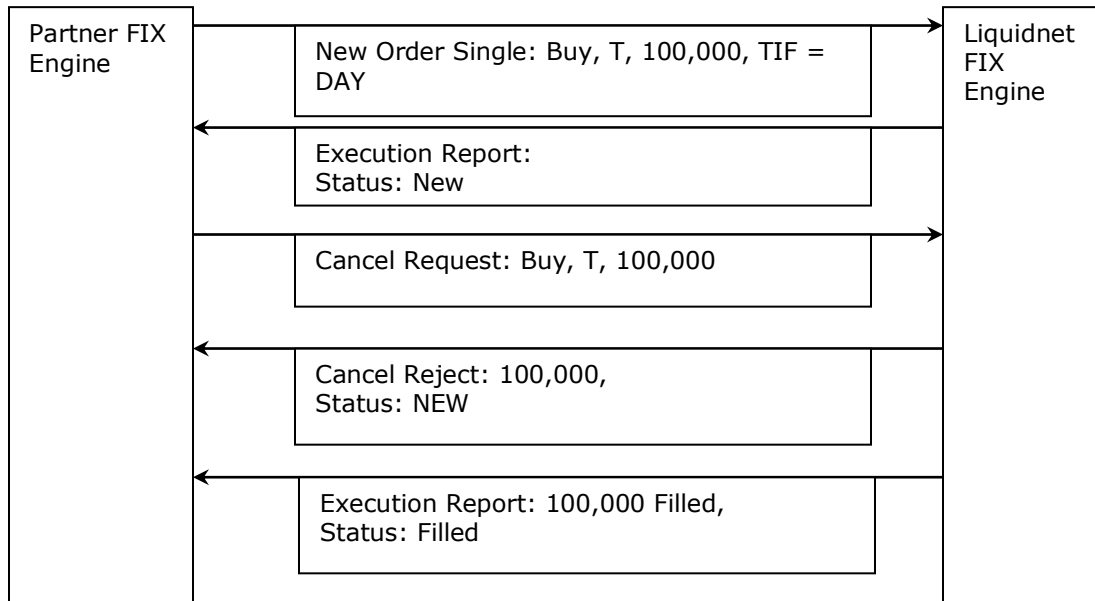
7.4 Day Order, No Execution, Cancel Request, Canceled

The Partner configured for H2O Blocks places a day order to buy 100,000 shares of VIA.B. The Partner cancels the order and Liquidnet returns an Execution Report acknowledging the cancel.



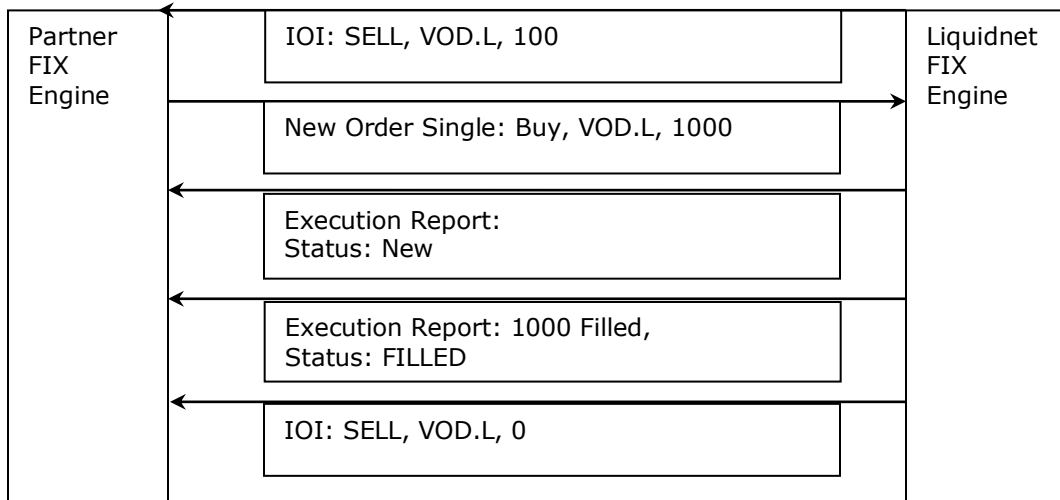
7.5 Day Order, Cancel Request, Too Late To Cancel

The Partner configured for H2O Blocks places a day order to buy 100,000 shares of T. The Partner transmits a request to cancel the order, but the order has already been filled in Liquidnet. Liquidnet rejects the Cancel Request and then returns an Execution Report for the FILL.



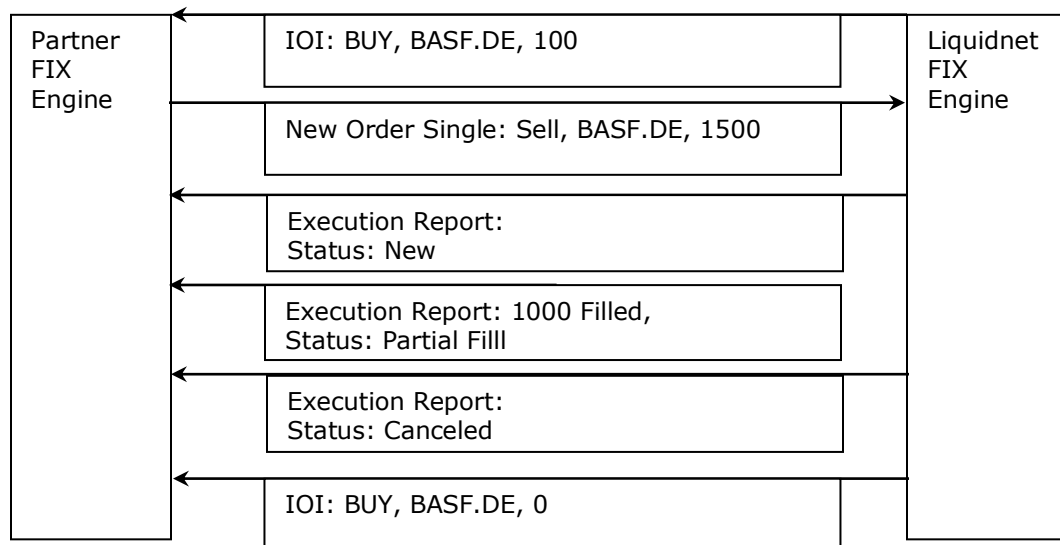
7.6 IOC/FOK Order, Full Execution

Upon receipt of a Sell IOI message, the Partner places an order for 1000 shares of VOD.L, Immediate or Cancel or Fill or Kill. Liquidnet fills the order and updates the IOI message.



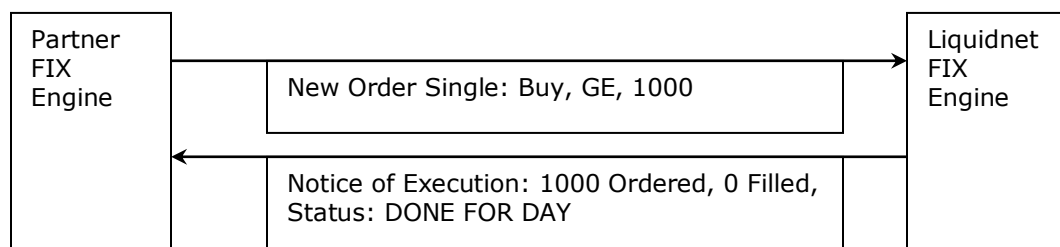
7.7 IOC Order, Partial Execution

Upon receipt of a Buy IOI message, the Partner places an order to sell 1500 shares of BASF.DE, Immediate or Cancel. Only 1000 shares are available, so Liquidnet partially fills the order and updates the IOI.



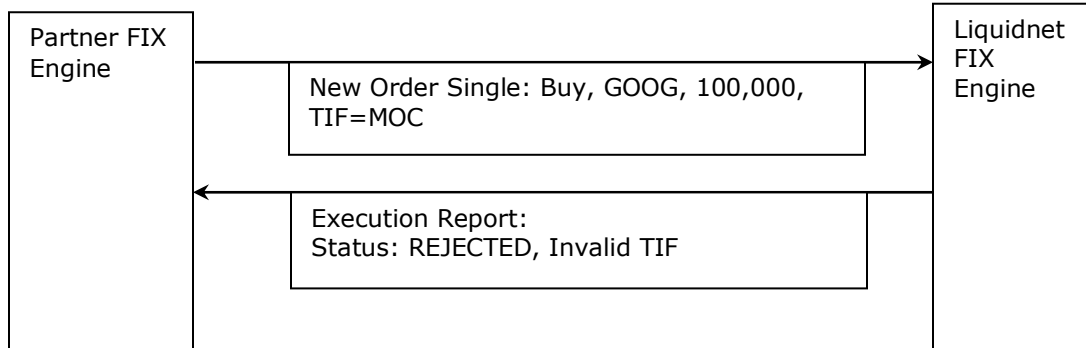
7.8 IOC/FOK Order, No Execution

The Partner places an order to buy 1000 shares of GE. Liquidnet does not have any coverage for this side/symbol. Liquidnet acknowledges the order but no execution is sent. The order is then implied to be canceled because it was not filled immediately.



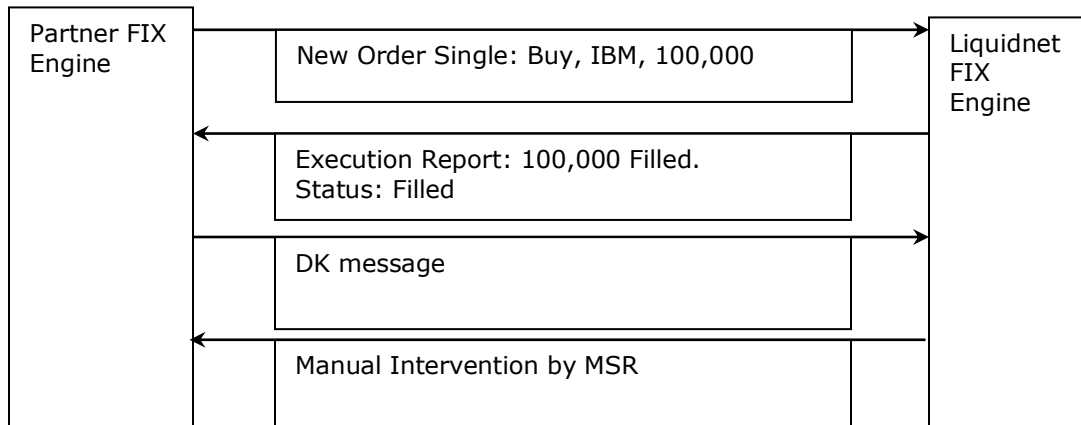
7.9 Day/IOC/FOK Order, Reject

The Partner sends an order to Liquidnet containing data that does not conform to business rules (e.g., invalid TIF or unknown symbol). Liquidnet rejects the order.



7.10 Day/IOC/FOK Order, Execution, DK

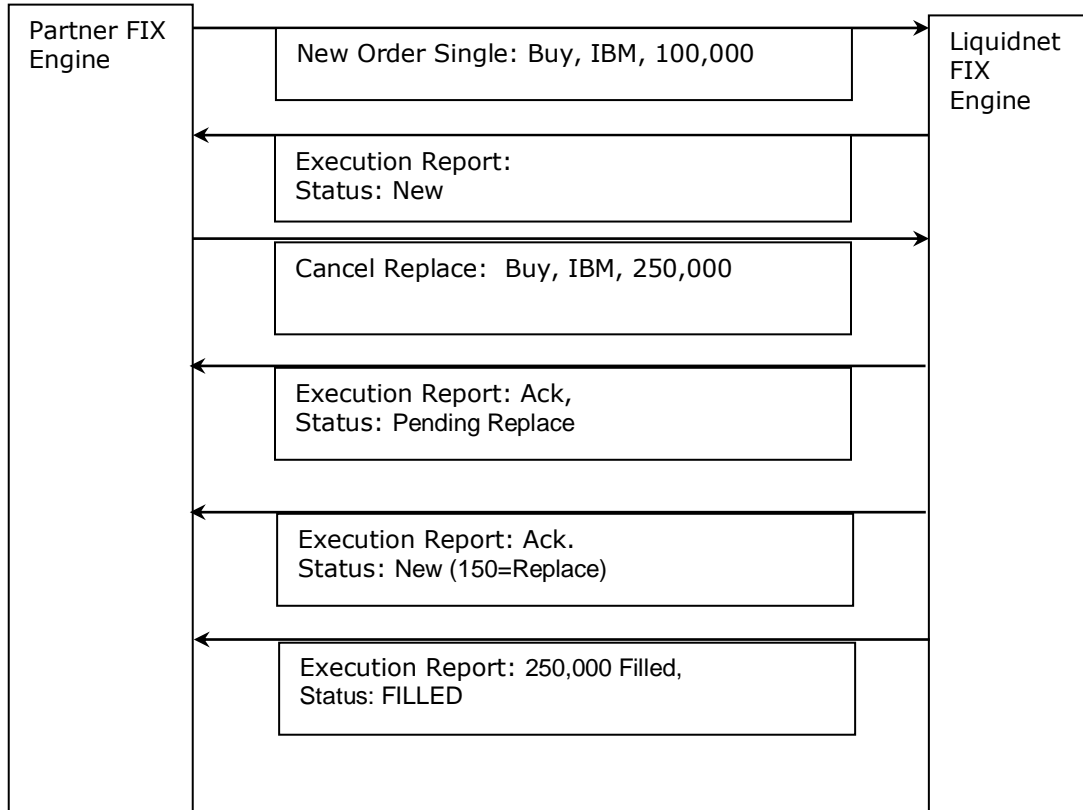
The Partner sends an order to Liquidnet that is valid. Liquidnet responds with an Execution Report that contains bad data or otherwise does not match the order sent by the Partner. The Partner rejects the Execution Report using a DK message. At this point Liquidnet Member services will contact Partner to resolve.





7.11 Day Order, Cancel Replace, Order Fill

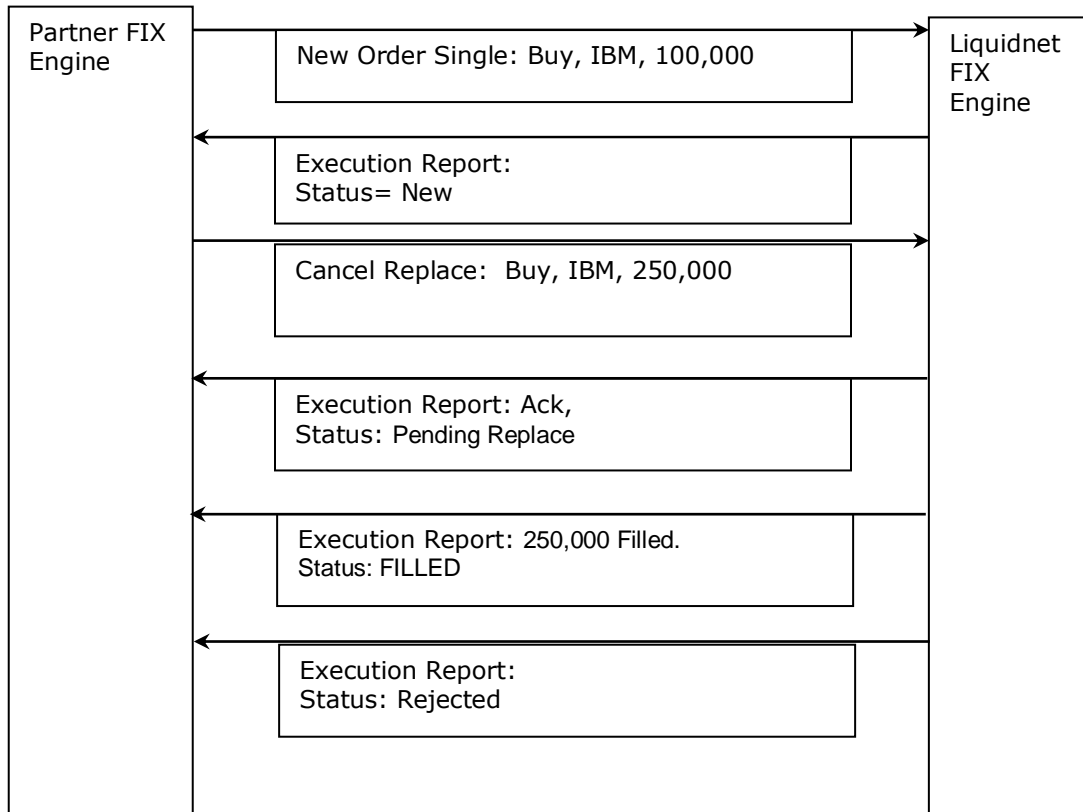
The Partner sends a valid order to Liquidnet. Liquidnet responds with an Execution Report status of new. The Partner sends a Cancel replace order to Liquidnet. Liquidnet responds with an order status of NEW and an exectype of REPLACE.





7.12 Day Order, Cancel Replace, Order Fill, Reject

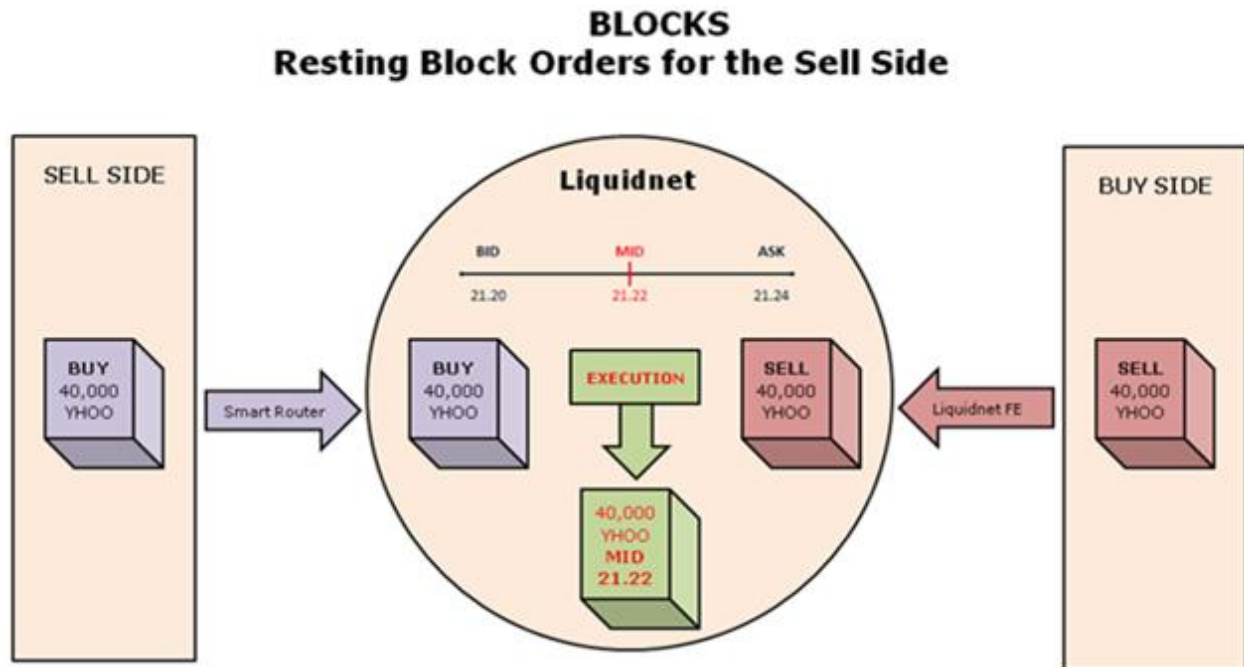
The Partner sends a valid order to Liquidnet. Liquidnet responds with an Execution Report status of new. The Partner sends a Cancel replace order to Liquidnet. Liquidnet responds with an order status of NEW and an exectype of REPLACE.



8 Appendix

8.1 A: Blocks Requirements

- Blocks orders are orders with a time in force of “Day”.
- Partners are held to sending a minimum order quantity of:
 - CA: 10,000 shares
- Partners are required to post Blocks in the Liquidnet System for a period of 30 seconds, after which time they are permitted to cancel the order.
- The minimum Member block size required to execute against an Partner H2O Blocks order is:
 - CA: 5,000 shares
- Day orders execute @ Midpoint (CBBO).



8.2 B: Canadian Regulatory Requirements

All Canadian domiciled brokers will be required to provide the following information as appropriate:

- Regulation ID: “IA”, InsiderAccount or “SH” Significant Shareholder disclosure must be provided on NOS messages where applicable, using tag 6763. Tag 6763 can be omitted if disclosure does not apply to the NOS.
- Executing trader’s StampID should be provided in tag 50 on all NOS messages. NOS omitting this info, or including invalid information will be rejected. Please contact Liquidnet for additional options if you are unable to provide this information on tag 50.
- Executing Broker information will be associated with the FIX session, meaning all NOS message over a specified session will be attributed to the same broker number.

8.3 C: Testing of the Connection

Steps to Connect to Test Environment:

- Call Liquidnet QTS support hotline at 646-660-8445 or email qts_support@liquidnet.com to request new test FIX session.
- We will provide you will IP, port, and CompID’s of test session.
- You will need to provide Liquidnet with your internet known-as address to add to our firewall.
- Turnaround time is usually 24 hours.