OTC Markets

OTC Link FIX Messaging Service – "FIXIE RFQ"

Client Specification

Version 1.6
August 31, 2021

OTC Markets Group Inc.
300 Vesey Street (1 North End Ave), 12th Floor
New York, NY 10282
www.otcmarkets.com

Contact Information
E: techsupport@otcmarkets.com
P: 212.896.4411

Table Of Contents

1   Introduction

The OTC Link FIX Messaging Service allows OTC Link market participants to submit Request For Quote (RFQ) messages electronically to *OTC Link*, an Interdealer

Quotation system and Message Routing and Executions service for OTCQX, OTCQB and OTC Pink securities.

This service utilizes the FIX 5.0 protocol standard as defined by www.fixprotocol.org, with some exclusive custom extensions.

Connection to the OTC FIX gateway is typically made through one or more extranet vendors. Please contact techsupport@otcmarkets.com for latest connectivity information.

OTC FIX gateways are configured to talk to a single service per port. Customers who wish to send and receive messages for different services should contact OTC Markets to provision at least one port for every service. The table below describes the OTC Link services currently offered via OTCFIX.

Service	Description
Quotes	OTC Link quotation platform
Trades	OTC Link trade messaging
Volume Feed	OTC Link Volume Feed
RFQ	OTC Link RFQ messaging

If the connection to an OTC FIX session is lost and reestablished later in the day, OTC will deliver all the queued outbound traffic that would have been received if the connection had not been lost. However, when a connection is initially established, even if it's later in the day, only messages generated from time of connection will be delivered. I.e., Messages queued prior to initial connection will not be delivered.

2   OTC Link – RFQ Messaging

2.1   Definitions

Message Sender: The subscriber firm sending a FIX message to OTC Markets from an OMS or similar trading application.

Message Receiver: The subscriber firm receiving a FIX message from OTC Markets.

Initiator: The subscriber firm starting an RQF negotiation by sending an RFQ message.

Respondent: The subscriber firm receiving this RFQ message

RFQ New Message: A message sent by Initiator to respondent with a request for a bid and/or ask quote price for a specific number of shares of a security

RFQ Response Message: A response message sent by the respondent to indicate the bid and/or ask price the respondent is willing to quote.

RFQ Accept Message: A message sent by initiator to respondent to accept the respondent's response to and RFQ

MPID: The FINRA assigned 4 letter ID code for a subscriber firm.

Trader ID: The login ID for a particular user account belonging to a subscriber firm. The specified user account is the one associated with the transaction, the analog of a user logged into a Dealer session.

Transaction: A series of messages that constitute a discrete RFQ action. Example: Receiving an RFQ, responding with a quote and having the quote accepted.

2.2 Business Rules

2.2.1 General

OTC Link allows two parties to exchange messages, i.e. RFQ new messages, RFQ response messages, response accepts or declines. The operating hours for OTC Link are currently 6:00 am to 5:00 pm. RFQ new messages must have a specific Time In Force duration. All RFQ Messages are cancelled automatically when the service closes.

It's important to note that OTC Link acts as a middleman. OTC Link will acknowledge every message it receives. No submission to OTC Link can be assumed to be successful until a confirmation is returned from OTC Link. A successful message submission results in a Confirmation. A failed submission results in a Reject messages. The confirmation or rejection received depends on the message being submitted. Each response will include a ResultCode tag, which confirms successful submission or explains why it failed. See chapter 5 for a list of Result Codes.

The initiator starts the RFQ Message process by submitting the RFQ New Message to OTC Link. If OTC Link successfully validates the message, it will forward it to the selected respondents (one or more respondents can be selected on a single RFQ New Message). Each respondent will receive the RFQ New Message. Before it expires, the respondents can respond to or decline the RFQ New Message. While the RFQ New Message is active and before it expires or is responded to, the initiator can cancel it. The initiator can also accept a respondent's response. Before the respondent's response is accepted, the respondent can cancel or modify the response.

2.2.2 Receipt/Delivery Policy

Only preferred RFQ New Messages are allowed, i.e. they cannot be broadcast; only sent to specific firms. The respondents need not have a quote in OTC Link for the security. A respondent is specified as a market maker.

OTC Link will process messages on a first come / first serve basis. That means if two messages arrive for the same RFQ Message at almost the same time, the first message received by OTC Link will be processed first. Based on the result of that, the second message may get rejected, for example because a RFQ Message has been accepted.

2.2.3 User Specified RFQ Message Properties

The initiator of an RFQ New Message must include: 1) at least one respondent, 2) symbol, and 3) size. Optionally, a requested side of Bid, Ask or both can be included. If side is not included, it will default to both. The initiator can optionally include an RFQ Time In Force (TIF) of DAY or duration in seconds. If TIF is not included, it will default to 30 secs.

The respondent sending an RFQ Response Message must include a Bid Quote or Ask quote (optionally, both Bid Quote and Ask Quote can be included).

2.2.4 RFQ Message State

An RFQ New Message must be in one of different states. After being submitted initially, it is in New state and is Live. Another Live state is Responded to.

Expired states are Accepted, Declined and Timed Out. To be in the Declined state, all selected respondents need to have declined the RFQ message. A Live RFQ New Message can move to Expired state from any Live state. Once Expired it cannot become Live again.

The message state is indicated in the OrdStatus tag when available.

2.2.5 Message IDs

OTC Link will assign a unique RFQ ID to each successful RFQ New Message. The RFQ ID is an incremental numeric.

The RFQ ID is passed on to both sides of a Message dialog in the OrderID (37) tag. All subsequent references to the RFQ New Message must refer to it with this RFQ ID.

Both sides may pass their own ID in the ClOrdID (11) tag in all incoming messages. The ID can be any text up to 40 characters long. All subsequent messages will echo back this ID in the ClOrdID tag. Though it is not enforced, it is encouraged that this ID be unique for the day for each subscriber.

3 FIX Messages

3.1 Identification and Routing Header

All inbound messages to or outbound messages from OTC Link contain some or all of the following tags to identify the Type, Message Identifiers, Sender and Receiver of the message:

Tag	Tag Name	Messages *inbound to* OTC Link	Messages *outbound from* OTC LInk	Comments
8	BeginString	FIX.5.0	FIX.5.0	Standard FIX message type.
9	BodyLength	Message length in bytes	Message length in bytes	Standard FIX message type.
11	ClOrdID	Sender's own message ID	Echoes back own ID	Standard FIX message type.
34	MsgSeqNum	Message sequence number	Message sequence number	Standard FIX message type.
35	MsgType	Message Type Code	Message Type Code	Standard FIX message type.
37	OrderID	The OTC Markets issued RFQ ID	The OTC Markets issued RFQ ID	Standard FIX message type.
49	SenderCompID	The identity of the gateway submitting the message	The identity of the gateway receiving the message	Standard FIX session IDs. Assigned per-connection.
52	SendingTime	Date and time that message was sent. All times are GMT	Date and time that message was sent. All times are GMT	Standard FIX message type.
56	TargetCompID	The identity of the gateway receiving the message	The identity of the gateway submitting the message	Standard FIX session IDs. Assigned per-connection.
115	OnBehalfOfCompID	The FINRA issued MPID of your firm	The FINRA issued MPID of counterparty	Always 4 characters
116	OnBehalfOfSubID	Trader ID of message sender at your firm	(not used)	Up to 10 characters
128	DeliverToCompID	FINRA issued MPID(s) of firm(s) receiving RFQ message	The FINRA issued MPID of your firm	To OTCFIX: RFQ Send message only (ignored in other messages)
129	DeliverToSubID	(not used)	Trader ID at your firm message is directed at	

Notes:

- ***Message Type***: Always tag 35 (MsgType). The value of this tag is present on every FIX message and indicates the message content and tag structure.
- ***Message Identifiers***: Subscribers can submit an optional private message ID on tag 11 when sending messages to OTC Link. This ID value will be echoed back on acks and drop copies. This ID will not be shared with the counter party. When submitting a message against an existing RFQ New Message or RFQ Response Message, the message must be identified using the OTC Market's RFQ ID in tag 37.
- ***Session IDs***: Always tags 49 (SenderCompID) and 56 (TargetCompID). These tags are present on every message and a core part of the FIX protocol. They are typically handled automatically by the FIX messaging engine on either side of a connection. OTC Markets will assign the appropriate ID values as part connection provisioning. They have no effect on how the message is processed beyond the immediate FIX session.
- ***Inbound Firm Account IDs***: Tags 115 (OnBehalfOfCompID) and 116 (OnBehalfOfSubID) are optional for a generic FIX implementation but mandatory for OTC Market's implementation. All transactions on OTC Market's systems are associated with at least one trader account. In the OTC Dealer application, a user logs in with an assigned MPID and trader ID. For FIX sessions, the FINRA issued MPID and trader ID of the firm and user submitting the message should be sent on these tags instead. Because some FIX connections may handle messaging for multiple firms, these tags are always required to be sent. The FIX gateway maintains a list of firms that are authorized for every connection and will reject any messages with MPIDs that are not authorized. Tag 128 is also used on the Inbound New Order message to specify which firm(s) a New Trade message should be delivered to.
- ***Outbound Firm Account IDs***: Tags 128 (DeliverToCompID) and 129 (DeliverToSubID) are used on outbound messages to identify the MPID and trader ID the message is being sent to. For the OTC Dealer application, these values determine the particular users who would see a message, notification, or some other action that appears on Dealer screens. For FIX sessions, the firm and trader identification values are placed on these tags instead so that the receiving system can process and route as appropriate. Tags 115 and 116 specify the counterparty of the RFQ message.

Tags for the Routing and Identification header are highlighted in yellow in the message detail tables. For inbound messages, highlighted tags are those that subscribers are expected to send. For outbound messages, highlighted tags are those that OTC Markets will send as part of the message.

With the exception of ClOrdID (11), all tags of the Identification header are requited. If ClOrdID is omitted, then no Client Order ID will be echoed back to the subscriber.

3.2 Messages Submitted to OTC Link

3.2.1 RFQ New (Incoming to Link) Message

An RFQ New Message is initiated by sending a FIX Quote Request (35=R) message to OTC Markets on your subscriber FIX line. Sender of RFQ New Message gets back an Execution Report (35=8) message confirming success or failure, Receiver receives an RFQ New Message (35=R).

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "R"
49	SenderCompID	Yes	Assigned

56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
128	DeliverToCompID	Yes	The 4 character market participant ID of the Respondent. When sending an RFQ New Message to multiple receivers, separate multiple receivers by a single space.
11	ClOrdID	No	A unique identifier, max 40 characters.
55	Symbol	Cond	Identifying symbol for security. If the optional 48/22 tags are not sent, this tag will be required. If the optional 48/22 tags are sent as well, this tag will be ignored.
65	SymbolSfx	No	Optional Symbol Suffix
48	SecurityID	Cond	Optional CUSIP identifier
22	IDSource	Cond	Should contain "1" if a CUSIP was passed in SecurityID

54	Side	No	Valid values:
			  1 = Bid
			  2 = Ask
			  7 = Both (default)

38	Size	Yes	Number of shares

59	RFQ TimeInForce	No	Valid values:
			  0 = DAY
			  6 = GTD - Good Til Duration (default)

9559	RFQ Duration	No	When 59 = 6, the Time In Force until message expires, in whole seconds. If no duration is specified, the default is 30 seconds. Ignored, if 59 = 0.

3.2.2   RFQ Response (Incoming to Link) Message

Receiver of an RFQ New Message submits the RFQ Response message to reply with a Bid and/or Ask price. Sender of RFQ Response Message gets back an Execution Report (35=8) message confirming success or failure, Receiver receives an RFQ Response message (35=AJ).

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "AJ"
49	SenderCompID	Yes	Assigned
56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
37	OrderID	Yes	The OTC Link RFQ ID being responded to
11	ClOrdID	No	A unique identifier, max 40 characters.

59	Response TimeInForce	No	Valid values:
			  0 = DAY
			  6 = GTD - Good Til Duration (default)

9559	Response Duration	No	When 59 = 6, the Time In Force until message expires, in whole seconds. If no duration is specified, the default is 30 seconds. Ignored, if 59 = 0.
132	BidPx	No	The price for the bid side. Required, if OfferPx is blank.
133	OfferPx	No	The price for the offer side. Required, if BidPx is blank.

3.2.3   Cancel RFQ New Message

While an RFQ New Message is still live, initiator can cancel by submitting below message. Both sides receive an Execution Report confirming cancellation; Sender gets back Cancel Reject if unsuccessful.

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "K"
49	SenderCompID	Yes	Assigned
56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
37	OrderID	No	The OTC Link RFD ID being cancelled. Required, if ClOrdID is blank.
11	ClOrdID	No	A unique identifier, max 40 characters. Required, if OrderID is blank.

3.2.4   Decline RFQ New Message

While an RFQ New Message is still live, respondent can decline it by submitting the below message. Both sides receive an Execution Report confirming decline, Receiver (message submitter) gets back Decline Reject if unsuccessful.

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "AG"
49	SenderCompID	Yes	Assigned
56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
37	OrderID	Yes	The OTC Link RFQ ID being declined
11	ClOrdID	No	A unique identifier, max 40 characters.

3.2.5   Cancel RFQ Response Message

While an RFQ Response Message is still live, respondent can cancel the response by submitting below message. Both sides receive an Execution Report confirming cancellation; Sender gets back Cancel Reject if unsuccessful.

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "CA"
49	SenderCompID	Yes	Assigned
56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
37	OrderID	Yes	The OTC Link RFQ ID
11	ClOrdID	No	A unique identifier, max 40 characters.

3.2.6   Modify RFQ Response Message

While an RFQ Response Message is still live, respondent can modify the response by submitting below message. Both sides receive an Execution Report confirming modification; Sender gets back Reject if unsuccessful.

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "AC"
49	SenderCompID	Yes	Assigned
56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
37	OrderID	Yes	The OTC Link RFQ ID
11	ClOrdID	No	A unique identifier, max 40 characters.

59	Response TimeInForce	No	Valid values: 0 = DAY 6 = GTD - Good Til Duration (default)
9559	Response Duration	No	When 59 = 6, the Time In Force until message expires, in whole seconds. If no duration is specified, the default is 30 seconds. Ignored, if 59 = 0.
132	BidPx	No	The price for the bid side. Required, if OfferPx is blank.
133	OfferPx	No	The price for the offer side. Required, if BidPx is blank.

3.2.7 Accept RFQ Response Message

While an RFQ Response Message is still live, initiator can accept a respondent's RFQ Response bid or ask (not both). Both sides receive an Execution Report confirming acceptance; Sender gets back Accept Reject if unsuccessful.

Tag ID	Tag Name	Required	Description
35	MsgType	Yes	Should be "CW"
49	SenderCompID	Yes	Assigned
56	TargetCompID	Yes	Assigned
115	OnBehalfOfCompID	Yes	FINRA issued MPID
116	OnBehalfOfSubID	Yes	OTC Link Trader ID
128	DeliverToCompID	Yes	The 4 character market participant ID of the Respondent.
37	OrderID	Yes	The OTC Link RFQ ID
11	ClOrdID	No	A unique identifier, max 40 characters.
54	Side	Yes	Valid values: 1 = Bid 2 = Ask

3.3 Messages Received from OTC Link

3.3.1 RFQ New (Outgoing from Link) Message

Both sides receive a confirmation of an RFQ New Message. Respondent gets an RFQ New Message (message type R), while Initiator gets an Execution Report message (message type 8, exec type a), see chapter 3.3.3.

Tag ID	Tag Name	Present	Description
35	MsgType	Always	Will be "R"
49	SenderCompID	Always	Assigned
56	TargetCompID	Always	Assigned
115	OnBehalfOfCompID	Always	The Counterparty's FINRA issued MPID
128	DeliverToCompID	Always	Your FINRA issued MPID
129	DeliverToSubID	Always	OTC Link Trader ID
37	OrderID	Always	The OTC Link RFQ ID
55	Symbol	Always	The trading symbol of the security
65	SymbolSfx	Sometimes	Optional Symbol Suffix
48	SecurityID	Sometimes	Optional CUSIP identifier
22	IDSource	Sometimes	Should contain "1" if a CUSIP was passed in SecurityID
54	Side	Always	Valid values: 1 = Bid

			2 = Ask 7 = Both
38	Size	Always	Number of shares
59	RFQ TimeInForce	Always	Valid values: 0 = DAY 6 = GTD - Good Til Duration (default)
9559	RFQ Duration	Sometimes	When 59 = 6, the Time In Force until message expires, in whole seconds

3.3.2 RFQ Response (Outgoing from Link) Message

Both sides receive a confirmation of an RFQ Response Message, either new or modified. Initiator gets an RFQ Response Message (message type AJ), while Respondent gets an Execution Report message (message type 8, exec type e), see chapter 3.3.3.

Tag ID	Tag Name	Present	Description
35	MsgType	Always	Will be "AJ"
49	SenderCompID	Always	Assigned
56	TargetCompID	Always	Assigned
115	OnBehalfOfCompID	Always	The Counterparty's FINRA issued MPID
128	DeliverToCompID	Always	Your FINRA issued MPID
129	DeliverToSubID	Always	OTC Link Trader ID
37	OrderID	Always	The OTC Link RFQ ID
132	BidPx	Sometimes	The price for the bid side.
133	OfferPx	Sometimes	The price for the offer side.
59	Response TimeInForce	Always	Valid values: 0 = DAY 6 = GTD - Good Til Duration (default)
9559	Response Duration	Sometimes	When 59 = 6, the Time In Force until message expires, in whole seconds

3.3.3 General Confirm/Reject and Cancel (Outgoing from Link) Message

This Execution Report (ER) message is used to report back to submitter confirmations or rejects of some submitted messages, as well as state updates to both sides of RFQ New and Response Messages.

The table below shows all reasons the ER message may be received. Tag ExecType is key to identifying the purpose of the message.

ExecType	Message Purpose
Returned to Initiator	
a	Confirming a successful RFQ New Message
b	RFQ New Message rejected
c	RFQ New Message cancel rejected
d	RFQ Response Message acceptance rejected
Returned to Respondent	
e	Confirming a successful RFQ Response Message
f	RFQ Response Message rejected
g	RFQ Response Message cancel rejected
h	RFQ New Message decline rejected
i	RFQ Response Message modification rejected
Returned to both Initiator and Respondent	
j	RFQ New Message was canceled by initiator
k	RFQ New Message declined by respondent
m	RFQ New Message timed out
n	RFQ Response Message was canceled by respondent

o	RFQ Response Message was accepted by initiator
p	RFQ Response Message timed out

Tag ID	Tag Name	Present	Description
35	MsgType	Always	Will be "8"
49	SenderCompID	Always	Assigned
56	TargetCompID	Always	Assigned
115	OnBehalfOfCompID	Sometimes	The Counterparty's FINRA issued MPID
128	DeliverToCompID	Always	FINRA issued MPID
129	DeliverToSubID	Always	OTC Link Trader ID
37	OrderID	Sometimes	The OTC Link RFQ ID
11	ClOrdID	Sometimes	Echoed back from latest submission from each side
150	ExecType	Always	Indicates what message is for. See above table for valid values.
39	OrdStatus	Sometimes	Identifies current status of trade message, if known.
60	TransactTime	Always	Time the message was processed
54	Side	Sometimes	Included when ExecType 150 = 'o', to indicate the response side accepted. Valid values: 1 = Bid 2 = Ask
9548	ResultCode	Sometimes	Only sent to side submitting the message being acknowledged/rejected. See Result Codes.
58	Text	Sometimes	Message corresponding to ResultCode

4   Revision Change History

Version	Description of Version	Date Completed
1.6	Added Side tag 54 to General Confirm/Reject and Cancel (Outgoing from Link) Message	2021.08.31
1.5.3	Removed reject code 412 (set to reserved).	2021.08.20
1.5.2	Removed ending period in response text. Removed 'for [symbol]' from all 'Too late to…' response text.	2021.08.13
1.5.1	Removed tag 116 from all message from Link to client. Corrected typo in reject code 404. Modified reject code 416 and added codes 420 and 421.	2021.08.10
1.5	Added DeliverToCompID to Accept RFQ Response message.	2021.07.30
1.4	Changed Cancel RFQ New Message MsgType from 'F' to 'K'. Change OrderID in General Confirm/Reject and Cancel Message to be present Sometimes.	2021.07.29
1.3	Added ExecType 'p': RFQ Response Message timed out	2021.06.11
1.2.1	Corrected Modfiy RFQ Response Message tag 35 value from CA to AC.	2021.06.01
1.2	Added TIF field with DAY or GTD options for RFQ duration Added Response TIF and duration fields Removed peg requirements	2021.05.26
1.1	Changed requirement so that initiator must accept a Bid or Ask response, not both. Added Modify RFQ Response message. Added ability to respond to an RFQ with a Bid and/or Ask peg offset, which will track the inside, until the initiator accepts the response. Removed redundant Response ID (ExecID). Added ability to cancel an RFQ with either OrderID or ClOrdID	2021.05.19
1.0	Initial version	2021.04.21

5 Result Codes and Messages

Code	Reason sent	Message
400	Unspecified error.	Internal error. Action could not be completed
401	Successfully processed an RFQ New Message.	Success: New RFQ for [symbol], RFQ ID [OrderID]
402	Successfully processed a Decline RFQ New Message.	Success: New RFQ [OrderID] declined for [symbol]
403	Successfully processed a Cancel RFQ New Message.	Success: New RFQ [OrderID] canceled for [symbol]
404	Successfully processed an RFQ Response Message.	Success: RFQ response for [symbol], RFQ ID [OrderID]
405	Successfully processed an RFQ Response Message accept.	Success: RFQ response [OrderID] accepted for [symbol]
406	Successfully processed a Cancel RFQ Response Message.	Success: RFQ response [OrderID] canceled for [symbol]
407	RFQ New Message timed out	New RFQ [OrderID] for [symbol] expired
408	RFQ New Message rejected – invalid symbol	New RFQ rejected – symbol [symbol] is invalid
409	RFQ New Message rejected – invalid receivers	New RFQ rejected – receivers not entitled
410	RFQ New Message rejected – invalid side	New RFQ rejected – invalid side entry
411	RFQ New Message rejected – invalid size	New RFQ rejected – invalid size entry
412	Reserved	Reserved
413	RFQ New Message cancel rejected	Too late to cancel new RFQ [OrderID]
414	RFQ New Message decline rejected	Too late to decline new RFQ [OrderID]
415	RFQ Response Message rejected – invalid price	RFQ response rejected – invalid price entry
416	RFQ Response Message rejected	Too late to enter RFQ response for [OrderID]
417	RFQ Response Message cancel rejected	Too late to cancel RFQ response [OrderID]
418	RFQ Response Message modification rejected	Too late to modify RFQ response [OrderID]
419	RFQ Response Message accept rejected	Too late to accept RFQ response [OrderID]
420	RFQ Response Message timed out	RFQ Response [OrderID] for [symbol] expired
421	RFQ Response Message already sent	RFQ Response [OrderID] for [symbol] already sent