Phase 2d OTC Link ATS Scenarios Deep Dive

March 24, 2021

Agenda

▸ Introduction

▸ Phase 2d Technical Specification Updates Related to OTC Link ATS

▸ Sample Order Scenarios

▸ Q&A

▸ Appendix A: Sample OTC Dealer/GUI Scenarios

▸ Appendix B: Part 1 Order Reporting Scenarios

Webinar Introduction

▸ This webinar is Part 2 of the Phase 2d OTC Link ATS Reporting Requirements for OTC Link ATS Subscribers

▸ The recording and presentation for Part 1 can be found on the Events page of the CAT website

▸ Part 1 included:
  ◦ An introduction to the Quote Events, Quote Linkage and Quote Scenarios
  ◦ An illustration of the IDQS Linkage Key and two typical order reporting scenarios (for both FIX and OTC Dealer/GUI):
    • Proprietary order executed against a Market Maker's quote
    • Unexecuted counter/negotiation

Order Reporting– OTC Dealer/GUI

▸ OTC Dealer/GUI entries will be treated as manual order events and therefore no routed order ID is required for the route event.

▸ Further handling from OTC Link ATS to the market maker are electronic and will require a routed order ID for linkage.

▸ Presentation will include sample FIX scenarios and one sample OTC Dealer/GUI scenario. The remainder of the sample manual scenarios can be found in Appendix A.

Phase 2d Technical Specification Updates Related to OTC Link ATS

▸ New *handlingInstructions* values:

  ◦ 'DLVT'- On an Order Route event reflecting the route of an OTC Link Message to OTC Link ATS or an Order Accepted event reflecting the receipt of an OTC Link Message by OTC Link ATS, reflects the IMID of the Industry Member that the OTC Link Message was delivered to (e.g., DLVT:IMID)

  ◦ 'DLVF'- On an Order Accepted event reflecting the receipt of an OTC Link Message from OTC Link ATS or an Order Route event reflecting the route of an OTC Link Message by OTC Link ATS, reflects the IMID of the Industry Member that the OTC Link Message was delivered from (e.g., DLVF:IMID)

  ◦ 'NCTR'- Indicates if an OTC Link ATS message cannot be countered with an inferior price

  ◦ 'CTR'- Indicates that a New Order event, Order Route event or Order Accepted event represents the origination, route or receipt of a counter message through OTC Link ATS

  ◦ 'OCP'- OTC Link ATS instruction to cancel after partial execution

▸ New *timeInForce* value: 'GFD'- OTC Link ATS message Good for Duration. Requires the duration in the number of whole seconds.

▸ 'DAY' orders are assumed to automatically expire at 5:00 PM ET

▸ Decline time reflected as *eventTimestamp* in MEOC.

Order Scenarios

Scenario 1: FIX Expired Proprietary Order

The Industry Member ("IM1") creates a proprietary order with a duration of 10 seconds and sends a trade message through OTC Link ATS via FIX to a Market Maker ("MM") with a posted quote. The MM does not respond within 10 seconds and the trade message automatically expires.

Note that expired orders with the 'GFD' *timeInForce* value do not require an Order Cancelled event ("MEOC").

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	timeIn Force	Comments
1	Market Maker	MENQ	MQ386					
2	Market Maker	MERQ	MQ386		Q1234			
3	OTC Link ATS	MEQR	IDQS11234		Q1234			
4	IM1	MENO		O2345				FDID represents IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1	GFD:10	
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1	GFD:10	
7	OTC Link ATS	MEOR	IDQS11234	O3456	456	DLVF:IM1	GFD:10	
8	Market Maker	MEOA		O4567	456	DLVF:IM1	GFD:10	

Scenario 1: GUI Expired Proprietary Order

The Industry Member ("IM1") creates a proprietary order with a duration of 10 seconds and sends a trade message through OTC Link ATS via the GUI to a Market Maker ("MM") with a posted quote. The MM does not respond within 10 seconds and the trade message automatically expires.

Note that expired orders with the 'GFD' *timeInForce* **value do not require an Order Cancelled event ("MEOC").**

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	timeIn Force	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386			Q1234			
3	OTC Link ATS	MEQR	IDQS11234			Q1234			
4	IM1	MENO		O2345					FDID represents IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1	GFD:10	routedOrderID not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1	GFD:10	routedOrderID not required
7	OTC Link ATS	MEOR	IDQS11234	O3456	false	456	DLVF:IM1	GFD:10	
8	Market Maker	MEOA		O4567	false	456	DLVF:IM1	GFD:10	

Scenario 2: FIX Declined Proprietary Order

The Industry Member ("IM1") creates a proprietary order and sends a trade message through OTC Link ATS via FIX to a Market Maker ("MM") with a posted quote. The MM declines the trade message.

Note that since MM declined the order, it must submit an Order Cancelled event ("MEOC") with the *initiator* value of 'F' (for Firm). The *eventTimestamp* on the MEOC represents the decline time.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handling instructions	initiator	Comments
1	Market Maker	MENQ	MQ386					
2	Market Maker	MERQ	MQ386		Q1234			
3	OTC Link ATS	MEQR	IDQS11234		Q1234			
4	IM1	MENO		O2345				FDID represents IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1		
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1		
7	OTC Link ATS	MEOR	IDQS11234	O3456	456	DLVF:IM1		
8	Market Maker	MEOA		O4567	456	DLVF:IM1		
9	Market Maker	MEOC		O4567			F	eventTimestamp represents the decline time

Scenario 3: FIX Executed Countered Order

The Industry Member ("IM1") creates a proprietary order and sends a trade message that is marked as "negotiable" to a Market Maker ("MM") with a posted quote. MM counters and then IM1 executes the order.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	timeIn Force	initiator	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386		Q1234				
3	OTC Link ATS	MEQR	IDQS11234		Q1234				
4	IM1	MENO		O2345					FDID represents IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1	GFD:10		
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1	GFD:10		
7	OTC Link ATS	MEOR	IDQS11234	O3456	456	DLVF:IM1	GFD:10		
8	Market Maker	MEOA		O4567	456	DLVF:IM1	GFD:10		
9	Market Maker	MEOC		O4567				F	eventTimestamp represents the decline time
10	Market Maker	MENO		O9876		CTR			FDID represents MM's prop account
11	Market Maker	MEOR		O9876	789	DLVT:IM1	CTR GFD:10		
12	OTC Link ATS	MEOA		O4321	789	DLVT:IM1	CTR GFD:10		
13	OTC Link ATS	MEOR		O4321	234	DLVF:MM1	CTR GFD:10		
14	IM1	MEOA		O6543	234	DLVF:MM1	CTR GFD:10		
15	IM1	MEOT		O6543					buyDetails: FDID of IM1's prop account sellDetails: orderID O6543 received from OTC Link ATS ORF trade report will show IM1 against MM

Scenario 4: FIX Representative Order

The Industry Member ("IM1") receives a customer order and sends an OTC Link ATS trade message on a proprietary basis to represent the customer order to a Market Maker ("MM") with a posted quote. The MM executes the trade message.

#	Industry Member	Reported Event	quoteID	orderID	aggOrders	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	Comments
1	Market Maker	MENQ	MQ386					
2	Market Maker	MERQ	MQ386			Q1234		
3	OTC Link ATS	MEQR	IDQS11234			Q1234		
4	IM1	MENO (Customer)		O2345				FDID of customer's account
5	IM1	MENO (Rep Ord)		O3456	O2345			FDID of IM1's prop account
6	IM1	MEOR		O3456		123	DLVT:MM1	
7	OTC Link ATS	MEOA		O4567		123	DLVT:MM1	
8	OTC Link ATS	MEOR	IDQS11234	O4567		456	DLVF:IM1	
9	Market Maker	MEOA		O5678		456	DLVF:IM1	
10	Market Maker	MEOT						buyDetails: FDID of MM's prop account sellDetails: orderID O5678 received from OTC Link ATS ORF trade report will show MM against IM1
11	IM1	MEOF						clientDetails: orderID O2345 of customer order firmDetails: orderID O3456 of IM1's proprietary order fulfillmentLinkType properly marked

Scenario 5: FIX Executed on OTC Link ECN

IM1 originates a proprietary order and sends a trade message indicating that an **IOC** ECN order will first ping OTC Link ECN, before a trade message is sent to the selected MM. The trade message is fully executed on OTC Link ECN and no trade message is delivered to MM.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions		timeInForce	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386		Q1234				
3	OTC Link ATS	MEQR	IDQS11234		Q1234				
4	IM1	MENO		O2345					FDID of IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1	DLVT:ECN	IOC	
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1	DLVT:ECN	IOC	
7	OTC Link ATS	MEOR		O3456	456	DLVF:IM1		IOC	
8	OTC Link ECN	MEOA		O4567	456	DLVF:IM1		IOC	
9	OTC Link ECN	MEOT							buyDetails: orderID of the buy side sellDetails: orderID O4567 received from OTC Link ATS

Scenario 6: FIX Not Executed on ECN

IM1 originates a proprietary order and sends a trade message indicating that an **IOC** ECN order will first ping OTC Link ECN, before a trade message is sent to the selected MM. The trade message is NOT executed on OTC Link ECN and is then delivered to MM who executes the message.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions		timeInForce	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386		Q1234				
3	OTC Link ATS	MEQR	IDQS11234		Q1234				
4	IM1	MENO		O2345					FDID of IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1	DLVT:ECN	IOC	
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1	DLVT:ECN	IOC	
7	OTC Link ATS	MEOR		O3456	456	DLVF:IM1		IOC	
8	OTC Link ECN	MEOA		O4567	456	DLVF:IM1		IOC	
			The message pinged OTC Link ECN as an IOC order and was not executed						
9	OTC Link ATS	MEOR	IDQS11234	O3456	987	DLVF:IM1		IOC	
10	Market Maker	MEOA		O2468	987	DLVF:IM1		IOC	
11	Market Maker	MEOT							buyDetails: FDID of MM's prop account sellDetails: orderID O2468 received from OTC Link ATS ORF trade report will show MM against IM1

Scenario 7: FIX MM Executes two Orders from Same Quote

- Market Maker ("MMB") has a posted quote for 1,000 shares.
- Industry Member 1 ("IM1") creates a proprietary order for 1,000 shares and sends a trade message through OTC Link ATS via FIX to MMB.
- Industry Member 2 ("IM2") also creates a proprietary order for 1,000 shares and sends a trade message through OTC Link ATS via FIX to MMB.
- The MMB executes both trade messages for a total of 2,000 shares.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	Comments
1	Market Maker B	MENQ	MQ386				
2	Market Maker B	MERQ	MQ386		Q1234		
3	OTC Link ATS	MEQR	IDQS11234		Q1234		
4	IM1	MENO		O2345			FDID represents IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1	
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1	
7	OTC Link ATS	MEOR	IDQS11234	O3456	456	DLVF:IM1	
8	Market Maker B	MEOA		O4567	456	DLVF:IM1	
9	Market Maker B	MEOT		O4567			buyDetails: FDID of MM's prop account sellDetails: orderID O4567 received from OTC Link ATS ORF trade report will show MM against IM1
10	IM2	MENO		O9876			FDID represents IM2's prop account
11	IM2	MEOR		O9876	987	DLVT:MM1	
12	OTC Link ATS	MEOA		O6543	987	DLVT:MM1	
13	OTC Link ATS	MEOR	IDQS11234	O6543	135	DLVF:IM2	
14	Market Maker B	MEOA		O2468	135	DLVF:IM2	
15	Market Maker B	MEOT		O2468			buyDetails: FDID of MM's prop account sellDetails: orderID O2468 received from OTC Link ATS ORF trade report will show MM against IM2

Scenario 8: FIX Route from Subscriber to Global OTC

NOTE- This is a change in reporting requirements from the current Phase 2c requirements

- IM1 sends an OTC Link message to Global OTC to execute against a displayed order.

#	Industry Member	Reported Event	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions	Comments
1	IM1	MENO	O2345			FDID of IM1's prop account
2	IM1	MEOR	O2345	123	DIR	
3	OTC Link ATS	MEOA	O3456	123	DIR	
4	OTC Link ATS	MEOR	O3456	456		
5	Global OTC ATS	MEOA	O4567	456		
6	Global OTC ATS	MEOT				buyDetails: orderID of buy side sellDetails: orderID of order received from OTC Link ATS

Scenario 9: FIX Executed MAX Order

- MMB, MMC and MMD have quotes for 1,000 shares each.
- IM1 has proprietary interest in 2,000 shares and sends an OTC Link MAX Trade Message identifying MMB, MMC and MMD as the Respondents.
- MMB immediately gives a 1,000-share fill.
- MMC immediately gives a 1,000-share fill thus fully filling the order.
- MMD receives a message indicating that the Sender's message was Cancelled because it is part of a MAX group and the maximum number of executed shares has been reached.

Quote Events

#	Industry Member	Reported Event	quoteID	Quantity	routedQuoteID/ receivedQuoteID/ routedOrderID
1	Market Maker B	MENQ	MQ386	1000	
2	Market Maker B	MERQ	MQ386	1000	Q1234
3	OTC Link ATS	MEQR	IDQS11234	1000	Q1234
4	Market Maker C	MENQ	MCQ741	1000	
5	Market Maker C	MERQ	MCQ741	1000	CQ5678
6	OTC Link ATS	MEQR	MMC5678	1000	CQ5678
7	Market Maker D	MENQ	MDQ852	1000	
8	Market Maker D	MERQ	MDQ852	1000	DQ9876
9	OTC Link ATS	MEQR	MMD9876	1000	DQ9876

Scenario 9: FIX Executed MAX Order

- MMB, MMC and MMD have quotes for 1,000 shares each.
- IM1 has proprietary interest in 2,000 shares and sends an OTC Link MAX Trade Message identifying MMB, MMC and MMD as the Respondents.
- MMB immediately gives a 1,000-share fill.
- MMC immediately gives a 1,000-share fill thus fully filling the order.
- MMD receives a message indicating that the Sender's message was Cancelled because it is part of a MAX group and the maximum number of executed shares has been reached.

Order Events

#	Industry Member	Reported Event	quoteID	orderID	Quantity	leaves Qty	routedQuoteID/ receivedQuoteID/ routedOrderID	atsOrderTypes Represents	handling instructions			initiator	Comments
10	IM1	MENO		O2345	2000								FDID represents IM1's prop account
11	IM1	MEOR		O2345	2000		123		DLVT:MMB	DLVT:MMC	DLVT:MMD		
12	OTC Link ATS	MEOA		O3456	2000		123	"MAX"	DLVT:MMB	DLVT:MMC	DLVT:MMD		
13	OTC Link ATS	MEOR	IDQS11234	O3456	2000		456		DLVF:IM1				Route to MMB
14	OTC Link ATS	MEOR	MMC5678	O3456	2000		789		DLVF:IM1				Route to MMC
15	OTC Link ATS	MEOR	MMD9876	O3456	2000		098		DLVF:IM1				Route to MMD
16	Market Maker B	MEOA		O4567	2000		456		DLVF:IM1				
17	Market Maker B	MEOT		O4567	1000								
18	Market Maker C	MEOA		O4321	2000		789		DLVF:IM1				
19	Market Maker C	MEOT		O4321	1000								
20	Market Maker D	MEOA		O6543	2000		098		DLVF:IM1				
21	OTC Link ATS	MECR		O3456	2000	0	098						Cancel of the Route to MMD
22	Market Maker D	MEOC		O6543	2000	0						C	Cancel at the Order Level Cancel request time is the same as cancel confirmation time

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How to Ask a Question during Today's Call

- **For participants using computer audio:**
  - Click the "Raise Hand" button at the bottom of the participant's window.
  - A visual prompt will indicate that your line has been unmuted.

- **For participants using phone audio:**
  - Enter *9 on your phone keypad.
  - An audio prompt will indicate that your line has been unmuted.

FINRA CAT Helpdesk

Questions may be directed to the FINRA CAT Helpdesk at 888-696-3348 or help@finracat.com

Appendix A

Scenario 2: GUI Declined Proprietary Order

The Industry Member ("IM1") creates a proprietary order and sends a trade message through OTC Link ATS via the GUI to a Market Maker ("MM") with a posted quote. The MM declines the trade message.

Note that since MM declined the order, it must submit an Order Cancelled event ("MEOC") with the *initiator* value of 'F' (for Firm). The *eventTimestamp* on the MEOC represents the decline time.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling instructions	initiator	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386			Q1234			
3	OTC Link ATS	MEQR	IDQS11234			Q1234			
4	IM1	MENO		O2345					FDID represents IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1		routedOrderID is not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1		routedOrderID is not required
7	OTC Link ATS	MEOR	IDQS11234	O3456	false	456	DLVF:IM1		
8	Market Maker	MEOA		O4567	false	456	DLVF:IM1		
9	Market Maker	MEOC		O4567				F	eventTimestamp represents the decline time

Scenario 3: GUI Executed Countered Order

The Industry Member ("IM1") creates a proprietary order and sends a trade message that is marked as "negotiable" through OTC Link ATS via the GUI to a Market Maker ("MM") with a posted quote. MM counters and then IM1 executes the order.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	timeIn Force	initiator	Comments
1	Market Maker	MENQ	MQ386							
2	Market Maker	MERQ	MQ386			Q1234				
3	OTC Link ATS	MEQR	IDQS11234			Q1234				
4	IM1	MENO		O2345						FDID represents IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1	GFD:10		routedOrderID is not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1	GFD:10		routedOrderID is not required
7	OTC Link ATS	MEOR	IDQS11234	O3456	false	456	DLVF:IM1	GFD:10		
8	Market Maker	MEOA		O4567	false	456	DLVF:IM1	GFD:10		
9	Market Maker	MEOC		O4567					F	eventTimestamp represents the decline time
10	Market Maker	MENO		O9876				CTR		FDID represents MM's prop account
11	Market Maker	MEOR		O9876		789	DLVT:IM1	CTR GFD:10		
12	OTC Link ATS	MEOA		O4321		789	DLVT:IM1	CTR GFD:10		
13	OTC Link ATS	MEOR		O4321		234	DLVF:MM1	CTR GFD:10		
14	IM1	MEOA		O6543		234	DLVF:MM1	CTR GFD:10		
15	IM1	MEOT		O6543						buyDetails: FDID of IM1's prop account sellDetails: orderID O6543 received from OTC Link ATS ORF trade report will show IM1 against MM

Scenario 4: GUI Representative Order

The Industry Member ("IM1") receives a customer order and sends an OTC Link ATS trade message on a proprietary basis to represent the customer order to a Market Maker ("MM") with a posted quote. The MM executes the trade message.

#	Industry Member	Reported Event	quoteID	orderID	aggOrders	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling instructions	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386				Q1234		
3	OTC Link ATS	MEQR	IDQS11234				Q1234		
4	IM1	MENO (Customer)		O2345					FDID of customer's account
5	IM1	MENO (Rep Order)		O3456	O2345				FDID of IM1's prop account
6	IM1	MEOR		O3456		true		DLVT:MM1	routedOrderID is not required
7	OTC Link ATS	MEOA		O4567		true		DLVT:MM1	routedOrderID is not required
8	OTC Link ATS	MEOR	IDQS11234	O4567		false	456	DLVF:IM1	
9	Market Maker	MEOA		O5678		false	456	DLVF:IM1	
10	Market Maker	MEOT							buyDetails: FDID of MM's prop account sellDetails: orderID O5678 received from OTC Link ATS ORF trade report will show MM against IM1
11	IM1	MEOF							clientDetails: orderID O2345 of customer order firmDetails: orderID O3456 of IM1's proprietary order fulfillmentLinkType properly marked

Scenario 5: GUI Executed on OTC Link ECN

IM1 originates a proprietary order and sends a trade message indicating that an **IOC** ECN order will first ping OTC Link ECN, before a trade message is sent to the selected MM. The trade message is fully executed on OTC Link ECN and no trade message is delivered to MM.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions		timeInForce	Comments
1	Market Maker	MENQ	MQ386							
2	Market Maker	MERQ	MQ386			Q1234				
3	OTC Link ATS	MEQR	IDQS11234			Q1234				
4	IM1	MENO		O2345						FDID of IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1	DLVT:ECN	IOC	routedOrderID not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1	DLVT:ECN	IOC	routedOrderID not required
7	OTC Link ATS	MEOR		O3456	false	456	DLVF:IM1		IOC	
8	OTC Link ECN	MEOA		O4567	false	456	DLVF:IM1		IOC	
9	OTC Link ECN	MEOT								buyDetails: orderID of the buy side sellDetails: orderID O4567 received from OTC Link ATS

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Scenario 6: GUI Not Executed on ECN

IM1 originates a proprietary order and sends a trade message indicating that an **IOC** ECN order will first ping OTC Link ECN, before a trade message is sent to the selected MM. The trade message is NOT executed on OTC Link ECN and is then delivered to MM who executes the message.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions		timeInForce	Comments
1	Market Maker	MENQ	MQ386							
2	Market Maker	MERQ	MQ386			Q1234				
3	OTC Link ATS	MEQR	IDQS11234			Q1234				
4	IM1	MENO		O2345						FDID of IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1	DLVT:ECN	IOC	routedOrderID not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1	DLVT:ECN	IOC	routedOrderID not required
7	OTC Link ATS	MEOR		O3456	false	456	DLVF:IM1		IOC	
8	OTC Link ECN	MEOA		O4567	false	456	DLVF:IM1		IOC	
						The message pinged OTC Link ECN as an IOC order and was not executed				
9	OTC Link ATS	MEOR	IDQS11234	O3456	false	987	DLVF:IM1		IOC	
10	Market Maker	MEOA		O2468	false	987	DLVF:IM1		IOC	
11	Market Maker	MEOT								**buyDetails**: FDID of MM's prop account **sellDetails**: orderID O2468 received from OTC Link ATS **ORF trade report** will show MM against IM1

Scenario 7: <u>GUI</u> MM Executes two Orders from Same Quote

- Market Maker ("MMB") has a posted quote for 1,000 shares.
- Industry Member 1 ("IM1") creates a proprietary order for 1,000 shares and sends a trade message through OTC Link ATS via the GUI to MMB.
- Industry Member 2 ("IM2") also creates a proprietary order for 1,000 shares and sends a trade message through OTC Link ATS via the GUI to MMB.
- The MMB executes both trade messages for a total of 2,000 shares.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	Comments
1	Market Maker B	MENQ	MQ386					
2	Market Maker B	MERQ	MQ386			Q1234		
3	OTC Link ATS	MEQR	IDQS11234			Q1234		
4	IM1	MENO		O2345				FDID represents IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1	routedOrder ID not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1	routedOrder ID not required
7	OTC Link ATS	MEOR	IDQS11234	O3456	false	456	DLVF:IM1	
8	Market Maker B	MEOA		O4567	false	456	DLVF:IM1	
9	Market Maker B	MEOT		O4567				**buyDetails:** FDID of MM's prop account **sellDetails:** orderID O4567 received from OTC Link ATS ORF trade report will show MM against IM1
10	IM2	MENO		O9876				FDID represents IM2's prop account
11	IM2	MEOR		O9876	true		DLVT:MM1	routedOrder ID not required
12	OTC Link ATS	MEOA		O6543	true		DLVT:MM1	routedOrder ID not required
13	OTC Link ATS	MEOR	IDQS11234	O6543	false	135	DLVF:IM2	
14	Market Maker B	MEOA		O2468	false	135	DLVF:IM2	
15	Market Maker B	MEOT		O2468				**buyDetails:** FDID of MM's prop account **sellDetails:** orderID O2468 received from OTC Link ATS ORF trade report will show MM against IM2

Scenario 8: GUI Route from Subscriber to Global OTC

NOTE- This is a change in reporting requirements from the current Phase 2c requirements

- IM1 sends an OTC Link message to Global OTC to execute against a displayed order.

#	Industry Member	Reported Event	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	Comments
1	IM1	MENO	O2345				FDID of IM1's prop account
2	IM1	MEOR	O2345	true		DIR	routedOrderID not required
3	OTC Link ATS	MEOA	O3456	true		DIR	routedOrderID not required
4	OTC Link ATS	MEOR	O3456	false	456		
5	Global OTC ATS	MEOA	O4567	false	456		
6	Global OTC ATS	MEOT					buyDetails: orderID of buy side sellDetails: orderID of order received from OTC Link ATS

Scenario 9: GUI Executed MAX Order

- MMB, MMC and MMD have quotes for 1,000 shares each.
- IM1 has proprietary interest in 2,000 shares and sends an OTC Link MAX Trade Message identifying MMB, MMC and MMD as the Respondents.
- MMB immediately gives a 1,000-share fill.
- MMC immediately gives a 1,000-share fill thus fully filling the order.
- MMD receives a message indicating that the Sender's message was Cancelled because it is part of a MAX group and the maximum number of executed shares has been reached.

Quote Events

#	Industry Member	Reported Event	quoteID	Quantity	routedQuoteID/ receivedQuoteID/ routedOrderID
1	Market Maker B	MENQ	MQ386	1000	
2	Market Maker B	MERQ	MQ386	1000	Q1234
3	OTC Link ATS	MEQR	IDQS11234	1000	Q1234
4	Market Maker C	MENQ	MCQ741	1000	
5	Market Maker C	MERQ	MCQ741	1000	CQ5678
6	OTC Link ATS	MEQR	MMC5678	1000	CQ5678
7	Market Maker D	MENQ	MDQ852	1000	
8	Market Maker D	MERQ	MDQ852	1000	DQ9876
9	OTC Link ATS	MEQR	MMD9876	1000	DQ9876

Scenario 9: GUI Executed MAX Order

- MMB, MMC and MMD have quotes for 1,000 shares each.
- IM1 has proprietary interest in 2,000 shares and sends an OTC Link MAX Trade Message identifying MMB, MMC and MMD as the Respondents.
- MMB immediately gives a 1,000-share fill.
- MMC immediately gives a 1,000-share fill thus fully filling the order.
- MMD receives a message indicating that the Sender's message was Cancelled because it is part of a MAX group and the maximum number of executed shares has been reached.

Order Events

#	Industry Member	Reported Event	quoteID	orderID	Quantity	leaves Qty	manual Flag	routedQuoteID/ receivedQuoteID/ routedOrderID	atsOrderTypes Represents	handling instructions			initiator	Comments
10	IM1	MENO		O2345	2000									FDID represents IM1's prop account
11	IM1	MEOR		O2345	2000		true			DLVT:MMB	DLVT:MMC	DLVT:MMD		routedOrderID not required
12	OTC Link ATS	MEOA		O3456	2000		true		"MAX"	DLVT:MMB	DLVT:MMC	DLVT:MMD		routedOrderID not required
13	OTC Link ATS	MEOR	IDQS11234	O3456	2000		false	456		DLVF:IM1				Route to MMB
14	OTC Link ATS	MEOR	MMC5678	O3456	2000		false	789		DLVF:IM1				Route to MMC
15	OTC Link ATS	MEOR	MMD9876	O3456	2000		false	098		DLVF:IM1				Route to MMD
16	Market Maker B	MEOA		O4567	2000		false	456		DLVF:IM1				
17	Market Maker B	MEOT		O4567	1000									
18	Market Maker C	MEOA		O4321	2000		false	789		DLVF:IM1				
19	Market Maker C	MEOT		O4321	1000									
20	Market Maker D	MEOA		O6543	2000		false	098		DLVF:IM1				
21	OTC Link ATS	MECR		O3456	2000	0		098						Cancel of the Route to MMD
22	Market Maker D	MEOC		O6543	2000	0							C	Cancel at the Order Level Cancel request time is the same as cancel confirmation time

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Appendix B

FIX Prop Interest and Executed Order

The Industry Member ("IM1") sends a trade message to trade for its proprietary account to a Market Maker ("MM") with a posted quote. The message is marked as non-negotiable. The MM executes the trade message.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions		Comments
1	Market Maker	MENQ	MQ386					
2	Market Maker	MERQ	MQ386		Q1234			
3	OTC Link ATS	MEQR	IDQS11234		Q1234			
4	IM1	MENO		O2345				FDID of IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1	NCTR	
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1	NCTR	
7	OTC Link ATS	MEOR	IDQS11234	O3456	456	DLVF:IM1	NCTR	quoteID links to MEQR event
8	Market Maker	MEOA		O4567	456	DLVF:IM1	NCTR	
9	Market Maker	MEOT						buyDetails: FDID of MM's prop account sellDetails: orderID O4567 received from OTC Link ATS ORF trade report will show MM against IM1

GUI Prop Interest and Executed Order

The Industry Member ("IM1") sends a trade message to trade for its proprietary account to a Market Maker ("MM") with a posted quote. The message is marked as non-negotiable. The MM executes the trade message.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handlingInstructions		Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386			Q1234			
3	OTC Link ATS	MEQR	IDQS11234			Q1234			
4	IM1	MENO		O2345					FDID of IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1	NCTR	routedOrderID is not required
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1	NCTR	routedOrderID is not required
7	OTC Link ATS	MEOR	IDQS11234	O3456	false	456	DLVF:IM1	NCTR	
8	Market Maker	MEOA		O4567	false	456	DLVF:IM1	NCTR	
9	Market Maker	MEOT							buyDetails: FDID of MM's prop account sellDetails: orderID O4567 received from OTC Link ATS ORF trade report will show MM against IM1

OTC Link ATS may report the MENO and MEOR for IM1 as a third- party vendor.

FIX Countered Order

The Industry Member ("IM1") creates a proprietary order and sends a trade message that is marked as "negotiable" to a Market Maker ("MM") with a posted quote. MM counters back and then IM1 counters back. MM does not agree to an execution and lets the message expire.

Note that the Quote ID is not required on counter messages.

#	Industry Member	Reported Event	quoteID	orderID	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	timeIn Force	Comments
1	Market Maker	MENQ	MQ386					
2	Market Maker	MERQ	MQ386		Q1234			
3	OTC Link ATS	MEQR	IDQS11234		Q1234			
4	IM1	MENO		O2345				FDID represents IM1's prop account
5	IM1	MEOR		O2345	123	DLVT:MM1		
6	OTC Link ATS	MEOA		O3456	123	DLVT:MM1		
7	OTC Link ATS	MEOR	IDQS11234	O3456	456	DLVF:IM1		
8	Market Maker	MEOA		O4567	456	DLVF:IM1		
9	Market Maker	MEOC		O4567				
10	Market Maker	MENO		O9876			CTR	FDID represents MM's prop account
11	Market Maker	MEOR		O9876	789	DLVT:IM1	CTR	
12	OTC Link ATS	MEOA		O4321	789	DLVT:IM1	CTR	
13	OTC Link ATS	MEOR		O4321	234	DLVF:MM1	CTR	
14	IM1	MEOA		O6543	234	DLVF:MM1	CTR	
15	IM1	MEOC		O6543				
16	IM1	MENO		O7890			CTR	GFD:10	FDID represents IM1's prop account
17	IM1	MEOR		O7890	498	DLVT:MM1	CTR	GFD:10
18	OTC Link ATS	MEOA		O5678	498	DLVT:MM1	CTR	GFD:10
19	OTC Link ATS	MEOR		O5678	987	DLVF:IM1	CTR	GFD:10
20	Market Maker	MEOA		O8901	987	DLVF:IM1	CTR	GFD:10

GUI Countered Order

The Industry Member ("IM1") creates a proprietary order and sends a trade message that is marked as "negotiable" to a Market Maker ("MM") with a posted quote. MM counters back and then IM1 counters back. MM does not agree to an execution and lets the message expire.

Note that the Quote ID is not required on counter messages.

#	Industry Member	Reported Event	quoteID	orderID	manualFlag	routedQuoteID/ receivedQuoteID/ routedOrderID	handling Instructions	timeIn Force	Comments
1	Market Maker	MENQ	MQ386						
2	Market Maker	MERQ	MQ386			Q1234			
3	OTC Link ATS	MEQR	IDQS11234			Q1234			
4	IM1	MENO		O2345					FDID represents IM1's prop account
5	IM1	MEOR		O2345	true		DLVT:MM1		
6	OTC Link ATS	MEOA		O3456	true		DLVT:MM1		
7	OTC Link ATS	MEOR	IDQS11234	O3456	false	456	DLVF:IM1		
8	Market Maker	MEOA		O4567	false	456	DLVF:IM1		
9	Market Maker	MEOC		O4567					
10	Market Maker	MENO		O9876				CTR	FDID represents MM's prop account
11	Market Maker	MEOR		O9876	false	789	DLVT:IM1	CTR	
12	OTC Link ATS	MEOA		O4321	false	789	DLVT:IM1	CTR	
13	OTC Link ATS	MEOR		O4321	false	234	DLVF:MM1	CTR	
14	IM1	MEOA		O6543	false	234	DLVF:MM1	CTR	
15	IM1	MEOC		O6543					
16	IM1	MENO		O7890				CTR	GFD:10	FDID represents IM1's prop account
17	IM1	MEOR		O7890	true		DLVT:MM1	CTR	GFD:10	
18	OTC Link ATS	MEOA		O5678	true		DLVT:MM1	CTR	GFD:10	
19	OTC Link ATS	MEOR		O5678	false	987	DLVF:IM1	CTR	GFD:10	
20	Market Maker	MEOA		O8901	false	987	DLVF:IM1	CTR	GFD:10	