Frequently Asked Questions

Decentralized Linkage: The NASDAQ Options Market

Updated 8/28/09

1. **Q: What is Decentralized Linkage?**
Decentralized Linkage (also referred to as Distributed Linkage or Options Order Protection and Locked/Crossed Market Plan), is the replacement for the Plan for the Purpose of Creating and Operating an Options Intermarket Linkage (Linkage Plan). Under the Linkage Plan, which is being phased out, participant exchanges used the Options Clearing Corporation (OCC) Linkage Hub for inter-exchange routing. Effective Monday, August 31, 2009, the options exchanges will begin to access other options exchanges using private connectivity and membership.

   Decentralized Linkage addresses issues including locked and crossed markets, trade-throughs and the introduction of Intermarket Sweep Orders (ISO).

2. **Q: Will The NASDAQ Options Market[SM] (NOM) be ready to route outbound ISOs and accept inbound ISOs on August 31st?**
Yes. NOM is fully prepared for the implementation of the Decentralized Linkage plan.

3. **Q: How will NOM access other options exchanges?**
The NASDAQ Options Market will use NASDAQ Options Services (NOS), a broker-dealer, to access the different options exchanges. NOM has direct connectivity to each exchange.
NOM will maintain customer anonymity when accessing other options exchanges. Orders sent to away exchanges will not contain any information pertaining to the identity of the customer.

4. **Q: Will the broker-dealer NOM uses to access other exchanges be monitored for compliance?**
Yes. NOM will use the NOS broker-dealer to access other exchanges. The sole business of NOS is to act as agent for orders that are routed to away exchanges. NOM member information is not sent to the away exchanges when the order is routed. NOS's Designated Examining Authority and the exchanges that NOS accesses will monitor the broker-dealer to ensure proper activity.

5. **Q: How does Decentralized Linkage address trade-throughs?**
Under Decentralized Linkage, participants cannot trade through protected Bids or Offers unless certain trade-through exemptions apply. NOM is designed to avoid trading through Protected Quotations unless NOM receives an ISO order.

   Exemptions to the trade-through prohibition are granted under the following circumstances:
   - **Self Help** - The Protected Quotation being traded through is on an exchange experiencing technical difficulties. Specifically, if the exchange repeatedly fails to respond to incoming orders within one second, Self Help can be declared against that exchange at which point that exchange's Protected Quotations are ignored. When Self Help is declared against an exchange, the party declaring Self Help must ensure that the problem is not with their own systems. Additionally, the exchange experiencing problems must be notified that Self Help has been declared against it. Reasonable policies and procedures must be maintained regarding the Self Help process. When declaring Self Help against NOM, an email should be sent to: **NOMSelfhelp@nasdaqomx.com**, followed by a phone call to +1 212 231 5100.
   - **Opening Process** - The transaction creating the trade-through occurred during an opening rotation.

- **Crossed Market** - The trade-through occurred when the there was a Crossed Market, which exists when the National Best Bid is greater than the National Best Offer.
- **Intermarket Sweep Order (ISO)** - The transaction creating the trade-through is the result of an order identified as an ISO. Firms sending ISO orders must simultaneously send ISOs to all away exchanges with better-priced Protected Quotations.
- **Exchange-Routed ISOs** - The transaction creating the trade-through is effected by an exchange while simultaneously routing ISOs to execute against all other better-priced Protected Quotations.
- **Flickering Quotes** - The transaction creating the trade-through occurred when the exchange displaying the Protected Quotation had displayed, within one second prior to the trade-through execution, a price that was equal or inferior to the price of the trade-through transaction.
- **Non-Firm Quotes** - The quotation that was traded through was a non-firm quote, in which case it is not considered a Protected Quotation.
- **Complex Trades** - The transaction that created the trade-through was a component of a complex trade.
- **Stopped Orders** - The transaction that created the trade-through was the result of a stopped order. When using a stopped order, the customer is buying at a price that is lower than the National Best Bid or selling at a price that is higher than the National Best Offer.
- **Relevant Time-Stopped Orders** - The transaction that created the trade-through was the execution of an order that was stopped at a price that did not trade through an eligible exchange at the time of the stop.
- **Benchmark Trade** - The transaction that created the trade-through was the execution of an order at a price that was not based, directly or indirectly, on the quoted price of the options series at the time of execution and for which the material terms were not reasonably determinable at the time the commitment to execute the order was made. The Securities and Exchange Commission (SEC) addressed a similar concept, such as Volume Weighted Average Price (VWAP) trades in the Rules 610 and 611.

6. Q: How does Decentralized Linkage address Locked and Crossed Markets?

Locking or crossing Protected Quotations must be avoided under Decentralized Linkage.

Exceptions to this component of the plan are granted under the following circumstances:

- **System Malfunction (Self Help)** - The locking or crossing quotation was displayed at a time when the exchange was experiencing a failure, material delay or malfunction of its systems or equipment.
- **Crossed Market** - The locking or crossing quotation was displayed at a time when there was a Crossed Market.
- **Intermarket Sweep Order** - The Member simultaneously routed an ISO to execute against the full displayed size of any locked or crossed Protected Bid or Protected Offer.

7. Q: What is an Intermarket Sweep Order (ISO)?

In conjunction with Decentralized Linkage, options markets will introduce the ISO. An ISO allows the receiving options exchange to trade through the current National Best Bid and Offer (NBBO). A Protected Bid/Offer is the best Bid/Offer for each options exchange as represented through the Options Price Reporting Authority (OPRA).
By sending an exchange an order marked ISO, the sender is affirming that it has attempted to access all better-priced Protected Quotations displayed by other exchanges for the entire size displayed on those exchanges.

8. Q: What are the data and record retention requirements for firms sending ISOs to NOM?

NOM's Market Surveillance Groups will monitor member activity to ensure that they do not engage in a pattern or practice of trading through Protected Quotations by entering orders marked ISO on NOM without properly sweeping other markets with Protected Quotations. If NOM Market Surveillance believes that a member may be improperly trading through away markets, NOM Market Surveillance will request that the member provide evidence that the ISOs are being sent properly and that the member has effective policies and procedures in place to avoid trade-throughs. NOM Market

Surveillance will follow the standard set forth by the SEC in the Responses to Frequently Asked Questions Concerning Rules 610 and Rule 611 of Regulation NMS[1].

9. Q: Can non-customer orders be marked as ISO?

Yes. Any participant type may mark an order as ISO. When a firm submits an ISO to NOM, the firm must simultaneously send ISOs to each exchange with a better-priced Protected Quotation.

10. Q: How much time can elapse between sending an ISO and crossing?

Crosses must be executed contemporaneously with the routing of ISOs. Additional guidance can be found in the **FAQs** the SEC provided regarding NMS rule 610 and 611.

11. Q: What are the time requirements with regards to ISO orders and trades?

In order to send an ISO, the sending party must simultaneously send ISOs to all exchanges with better Protected Quotations.

Example:

Firm A would like to trade on NOM at $1.00.
The current Protected NBBO is:
PHLX: $1.02 – $1.03 (100 x 200)
BOX: $1.01 - $1.04 (100 x 50)
Firm A simultaneously

1) Sends an ISO to PHLX to sell 100 contracts at $1.02
2) Sends an ISO to BOX to sell 100 contracts at $1.01
3) Sends the order to NOM to sell at $1.00. This order must also be marked as ISO so that NOM knows to ignore the PHLX and BOX $1.02 and $1.01 bids, respectively.

When NOM receives the order from Firm A, it executes at $1.00 and the trade is reported to OPRA with the “S” modifier indicating the execution was the result of an ISO order.

12. Q: Will NOM send ISOs when routing to other options exchanges?

Yes. NOM always seeks the best prices by routing to the exchange with the best price. When it receives an order that is priced aggressively through the NBBO and is greater than the size available at the first price level, it will route to the top price level at any exchange with a superior price, going to the best price first. To avoid order rejects from away exchanges, routed orders will always be marked with the ISO flag.

13. Q: How will NOM process incoming ISOs?

If an order is flagged with the ISO designation, it indicates that the entering firm has routed to all protected quotes and NOM should execute the order in its own book regardless of other quotations in the marketplace.

14. Q: Will an ISO post on NOM if the Time-In-Force is not Immediate-Or-Cancel (IOC)?

[1] For example, a member could randomly select three trading days per month for review (known only to its compliance personnel) and maintain all relevant “snapshots” of the Firm-Specific Quotation Data from those days that are necessary to demonstrate the reasonableness of its policies and procedures. The following link shows responses to FAQs regarding Rules 610 and 611 of Regulation NMS:

http://www.sec.gov/divisions/marketreg/nmsfaq610-11.htm

Yes. An ISO with a Time-in-Force (TIF) of DAY will post on NOM after exhausting existing liquidity on the book. Note that firms wishing to display DAY ISOs must route to protected quotes up to and including the price at which they wish to display an order.

15. Q: Can an ISO that is posted on NOM lock or cross other protected quotes?

Yes. If an ISO with a TIF other than Immediate-or-Cancel (IOC) is sent to The NASDAQ Options Market, it will post on NOM at the entered price regardless of whether or not it will lock other market centers. By sending an ISO order, the entering firm is indicating that it has attempted to access other protected quotes.

16. Q: How does a member post a bid (offer) that would lock a protected offer (bid)?

In order to post a bid that would lock or cross an existing Protected Offer, the firm must send ISOs to each away exchange with a Protected Quotation that is equal to or better than the price of the bid the firm would like to post. Additionally, the firm must mark the bid as ISO when sending it to NOM.

Example:

Firm A would like to post a bid on NOM at $1.04.

The current protected NBBO is:

PHLX: $1.02 – $1.03 (100 x 200)

BOX: $1.01 - $1.04 (100 x 50)

Firm A simultaneously

1) Sends an ISO to PHLX to buy 200 contracts at $1.03
2) Sends an ISO to BOX to buy 50 contracts at $1.04
3) Submits a bid to NOM at $1.04. The bid must also be marked as ISO.

17. Q: If a firm sends a non-ISO order marked as Do-Not-Route that will lock or cross a protected quote, how will NOM process the order?

If a firm sends a non-ISO order marked as Do-Not-Route that will lock or cross a protected quote, NOM will post the order on the book at a price that locks the NBBO and will display the order to OPRA at a non-locking price. NOM will never trade through the NBBO if the order is not marked as ISO.

Example:

NBBO

$1.00 - $1.01 (100 x 100)

The NASDAQ Options Market receives a Do-Not-Route buy order for 50 contracts priced at $1.05. The order is re-priced to **$1.01** and displayed at $1.00.

The new NBBO:

$1.00 - $1.01 (***150*** x 100)

18. Q: What will NOM do with an order marked as SEEK (routable) but also marked as ISO?

If NOM receives an order with the SEEK routing strategy, the order will be routed to the best prices available in the market, as per normal SEEK functionality.

Marketable SEEK orders check the NOM book for possible execution and are then routed to away destinations. Once a SEEK order has been routed, it will post on the NOM book if not completely filled. Once posted, the order will not route again. For more information see **Chapter VI, Section 11** of The NASDAQ Options Market rules.

19. Q: How do I mark an order as ISO?

There is an ISO flag field in each of NOM's order entry protocols:

Protocol	Field	ISO Value
FIX to Trade Options	Tag 18 ExecInst	f
NOMAD	InterMarket Sweep Eligible, offset 115	Y
OTTO	InterMarket Sweep Eligible, offset 68	Y

20. Q: Is the reserve portion of a reserve order part of the "Protected Quotation?"

No. The reserve portion of reserve orders are not displayed in the public quote of the exchange. Only displayed quotations are protected.

21. Q: What is a Reserve Order?

A reserve order allows a firm to designate a portion of the order as non-displayed.

Example:

Firm A enters an order to buy 1,000 contracts with a reserve portion of 50 contracts at $1.00

NOM will display a bid of $1.00 with a size of 50 contracts. The remaining 950 contracts are available for execution but are not displayed. If the 50 displayed contracts are executed, the display size will be replenished from reserve resulting in a new display of 50 contracts and a reserve of 900 contracts.

22. Q: What are Price Improving Orders?

Price Improving orders are orders which are priced in penny ($0.01) increments for options that are quoted in nickel ($0.05) or dime ($0.10) increments. These orders are placed on The NASDAQ Options Market book at their actual price and represented to OPRA at the next allowable quote increment. Incoming orders receive the price of the resting Price Improving Order when executed. There are no special instructions needed to enter a Price Improving Order — firms simply need to price their orders in pennies.

Example:

- OPRA display: Bid: 1.00 Offer:1.05; Size: 10 x 10
- An order to buy 10 contracts at 1.03 is received by NOM
- NOM places order on the book at 1.03 and displays it at 1.00
- New OPRA display: Bid: 1.00 Offer: 1.05; Size:***20*** x10
- An order to sell 10 contracts at 1.00 is received
- NOM executes the sell order against the Price Improving Order at 1.03
- The seller receives price improvement immediately and automatically

23. Q: Are Price Improving orders considered to be part of a Protected Quotation?

Yes. Price Improving orders are protected at the price at which they are displayed. In the example below, the NOM book is protected at $1.00.

Example:

- OPRA display: Bid: 1.00 Offer:1.05; Size: 10 x 10
- An order to buy 10 contracts at 1.03 is received by NOM
- NOM places order on the book at 1.03 and displays it at 1.00
- New OPRA display: Bid: 1.00 Offer: 1.05; Size:20x10

- The NOM bid is protected at $1.00

24. Q: Are Hidden Orders part of a Protected Quotation?

No. Hidden orders are not displayed so they are not considered protected. NOM does not support hidden orders.

25. Q: Are All-or-None orders considered to be part of a Protected Quotation?

NOM does not support All-or-None orders that post on the book. However, it is NOM's understanding that All-or-None orders would not be protected because they cannot be displayed on OPRA.

26. Q: Does NOM offer any other functionality that firms can use to access away markets when sweeping with ISOs?

Yes. NOM offers **Exchange Direct Orders**, which allow a firm to firm to access away exchanges directly (excluding NASDAQ OMX PHLX)*. Firms can leverage this functionality to send ISOs to other exchanges without first checking the NOM book.

*Exchange Direct Orders can be used today to access AMEX, BOX, CBOE, ISE and NYSE Arca. Exchange Direct orders are not available for NASDAQ OMX PHLX.

27. Q: How does a firm know when NOM is open and its quotes are considered "protected"?

When NOM has a firm quote on OPRA, the market is open and the quotes are protected. Additionally, the NOM data feeds disseminate a message indicating when a particular option is open for trading, at which point quotations are firm and protected. Once NOM is open with Protected Quotations, firms may send ISOs under appropriate circumstances.

28. Q: How do new rules surrounding decentralized linkage impact best execution on NOM?

ISO orders will be excluded from the Quality of Execution reports produced by the exchange. NOM always executes at the best prices available in the market and is built to avoid trading through valid better-priced quotes on away exchanges. Orders marked as ISO bypass the system rules that only allow executions at the NBBO or better. Firms should always be cognizant of order handling and best execution obligations.

29. Q: Are members required to use ISOs?

Members who wish to trade at a price that is inferior to prices of Protected Quotations on other exchanges must send ISOs to each exchange with a better price and also send an ISO to NOM to trade at the price that is inferior to those exchanges' prices.

Members who wish to trade at the best prices available in the market do not need to mark their orders as ISO (see question 18 regarding the SEEK routing strategy above).

30. Q: Can a block-sized cross, solicitation or facilitation order be marked as ISO?

Yes. NOM does not offer a crossing mechanism at this time. However, firms participating in facilitation or solicitation can send an order that will trade through the market as ISO as long as the firm has attempted to access all better-priced protected quotations available in the marketplace contemporaneous to sending the facilitation or solicitation order marked as ISO.

31. Q: What are the mechanics involving an options cross trade?

NOM does not currently offer a crossing mechanism, however, it is possible to cross on NOM using two separate orders. The price/time execution algorithm allows firms to cross 100% of the order if their orders are first in price and time.

Additionally, NOM refers to the SEC Rule 610 and 611 **FAQ number 3.03** for guidance regarding crossing orders:

Crosses may be executed after responses to all accompanying ISOs have been received. The routing of ISO does not relieve a firm of its exposure requirements, where applicable.

32. Q: If a firm erroneously submits an order, is there an exception for the firm to correct the trade with the proper information at a later time even if it would create a trade-through?

If a firm makes an error such as submitting an order in the wrong strike or class, the firm should submit an obvious error filing as per Section 6 in Chapter V of the **NOM rules**.

33. Q: Where can I find more information?

- Refer to the **NOM rules**.
- Contact **Transaction Services U.S. Market Sales** at +1 800 846 0477.
- Refer to the **Functionality and Order Types Fact Sheet** on the NASDAQ OMX Trader® website.