NASDAQ OMX® | NOM

FREQUENTLY ASKED QUESTIONS: THE NASDAQ OPTIONS MARKET (NOM)

1. **What are the hours of operation for The NASDAQ Options Market^{SM} (NOM)?**
   The daily system timeline is as follows (all Eastern Time):
   - 7:30 a.m. – System begins accepting orders.
   - 9:25 a.m. – System begins disseminating imbalance and price information for the opening auction.
   - 9:30 a.m. – System begins executing orders.
   - 4:00 p.m. – System stops accepting and executing options orders for options with a "Normal" closing time. (Refer to the Options Closing Type in the symbol directory.)
   - 4:15 p.m. – System stops accepting and executing options orders with a "Late" closing time. (Refer to the Options Closing Type in the symbol directory.)

2. **How are executions allocated on NOM?**
   Executions are allocated on a **price/time priority** basis.

3. **Which Time-in-Forces (TIFs) are accepted on NOM?**
   TIFs of Immediate-or-Cancel (IOC), Day, and Good-Til-Cancelled (GTC) are accepted on NOM.

4. **Does NOM support All-or-None (AON) orders?**
   Yes. NOM treats AON orders as IOC regardless of the TIF on the order. However, firms may choose to have NOM reject AON orders with TIFs other than IOC. Please contact **NASDAQ OMX Subscriber Services** to request AON order rejection.

5. **Does NOM allow a cancel/replace of an order from DAY to GTC?**
   Yes. NOM will allow firms to cancel/replace Day orders to GTC orders.

6. **Does NOM support price improvement?**
   Yes. NOM offers Price Improving Orders which are priced within the MPV of an option.

7. **How do Price Improving Orders work?**
   Price Improving Orders are orders entered into the system which are priced within the displayable quote spread. These orders are placed on the NOM book at their actual price and represented to the Options Price Reporting Agency (OPRA) and in our proprietary feeds at the 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 (non-penny pilot option):
   a. OPRA display: Bid: 1.00, Offer: 1.05; Size: 10x10

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

8. What participants are eligible to receive price improvement?
Price improvement is available to all participants on NOM.

9. How does NOM handle orders it receives that would lock or cross the NOM book or the National Best Bid and Offer (NBBO)?
If NOM receives an order that would lock or cross NOM, it will immediately execute. If the order would not lock or cross NOM, but would lock or cross another exchange, NOM will route the order to that exchange. If NOM receives an order that would lock or cross another exchange and it is marked "do not route," NOM will place the order on the book at the locking price and display it at the next allowable Minimum Price Variation (MPV).

Example:
- NOM Quote: $0.90 x $1.10 (100 x 100)
- 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* x100)

10. What is an Intermarket Sweep Order(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 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. An order marked as ISO will trade up to and including all prices within its limit price regardless of what prices are available at other exchanges.

11. What are the time requirements with regards to ISO orders?
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
    a. Sends an ISO to PHLX to sell 100 contracts at $1.02
    b. Sends an ISO to BOX to sell 100 contracts at $1.01
    c. 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. 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.

13. Does NOM send ISOs when routing to other options exchanges?
Yes. NOM always routes 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 price superior to the price on NOM. To avoid order rejects from away exchanges, routed orders will always be marked as IOC with the ISO flag.

14. Will an ISO post on NOM if the Time-In-Force is not Immediate-Or-Cancel (IOC)?
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. 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	Tag 18 ExecInst	F
QUO	InterMarket Sweep Eligible, offset 52	Y

16. What is Order Price Protection ("Fat Finger")?
Order Price Protection ("Fat Finger") provides protection for orders that are egregiously mis-priced. If an order is received and it is priced through the NBBO or best Exchange interest by a defined percentage, the order will be rejected.

17. What are the Order Price Protection settings on NOM?

The NOM Order Price Protection settings will be identical to the PHLX and BX Options Order Price Protection settings:

Order Type	NBO Value (for buys) or NBB Value (for sells)	
	≤ $1.00	> $1.00
Buy Limit	(100% * NBO) + NBO	(50% * NBO) + NBO
Sell Limit	No Threshold	NBB – (50% * NBB)

18. What is Acceptable Trade Range (ATR)?

Acceptable Trade Range (ATR) places a limit on the range of prices at which an order can execute. When an ATR is reached, the order will be posted at the ATR price for a limited period of time. Once that time has passed, the order will execute further to the next ATR level. Firms have the option of having their orders cancelled after an order has reached an ATR limit.

19. What are the current ATR settings?

Please refer to the System Settings document.

20. Does NOM offer self-trade prevention?

Yes. NOM offers AIQ which is a self-trade prevention mechanism for market makers. Market makers sending quotes over SQF, orders over QUO, or orders over FIX using their exchange identifier (ie.badge/suffix) or some combination thereof will never trade with themselves. Instead, the incoming quote or order will be accepted and the resting quote or order will be cancelled. Self-Trade Prevention is available at a configurable level per firm to prevent trading at either the exchange identifier, firm or account level.

21. What risk protection functionality is available?

NOM offers the same Rapid Fire Risk Monitor Mechanism that is offered on the PHLX and BX Options trading systems. Rapid Fire and Purge will be available for all market making interest entered over SQF and QUO based on a firm's participant ID.

22. Does NOM offer order routing?

Yes. NOM orders may be marked as Do Not Route, SEEK, or SRCH.

23. How does the "SEEK" routing strategy work?

If an order is marketable upon entry (i.e. it is priced at or more aggressively than the prevailing NBBO), the order will check the NOM book at the price of the NBBO. If the order is not fully executed it will route to other exchanges at the NBBO. If the order is posted on the NOM book at its limit price, it will not be re-routed.

24. How does the "SRCH" routing strategy work?

If an order is marketable upon entry (i.e. it is priced at or more aggressively than the prevailing NBBO), the order will check the NOM book at the price of the

NBBO. If the order is not fully executed it will route to other exchanges at the NBBO. Once the order posts on the NOM book at its limit price, if an away exchange locks or crosses its price, it will re-route.

25. What will NOM do with an order marked as SEEK or SRCH (routable) but also marked as ISO?

If NOM receives a routable order (SEEK or SRCH) that is also marked as ISO, the order will be rejected.

26. Does NOM have a complex order book?

No. NOM does not support complex orders at this time.

27. Can firms that are not market makers enter orders on both sides of the market?

Yes. All NOM members are allowed to enter orders on both sides of the market (i.e. simultaneous buys and sells).

28. What are the Customer order exposure requirements on NOM?

Firms must expose customer orders for **one second** before trading against them, as described in The NOM [rules](#). Firms can use the "WAIT" order type to facilitate this exposure period. The firm must enter both the customer order and the firm/market maker order separately and simultaneously but mark the firm/market maker order as a "WAIT" order. The system will hold the firm/market maker order for one second before sending it to the matching engine. If the customer order is not already executed and there are no other orders with higher priority, the firm/market maker order will execute against the customer order. If the resting/exposed customer order has already been cancelled or executed, the "WAIT" order will be executed against other interest at that price, cancelled if there is no other interest at that price, or posted based on the TIF.

The "WAIT" modifier is not intended to be used on the customer side of the transaction.

29. How do I mark an order as WAIT?

To mark an order as WAIT, firms must enter "WAIT" in FIX tag 76 – ExecBroker.

30. Can I use the same interface specifications for BX Options, NOM, and PHLX?

NASDAQ OMX's three U.S. options exchanges share INET technology architecture and provide customers with common customer service experience, data input and output across the two exchanges. Common elements include:
- SQF – Bulk quoting Market Making API that allows up to 200 quotes in one block message
- FIX interface - common FIX Specification for BX Options and NOM
- Customer reports on BX Options, NOM and PHLX
- Top of Market - BX Top/BONO/TOPO data feed format
- Common Depth market data feed format – BX Depth & NOM ITTO
- Shared customer and trade support services
- NDAQOptions.com – data portal providing billing and trade detail information

31. What interface is used for order entry?

Order Entry Firms use the FIX interface to send orders to NOM. The NOM FIX protocol provides customers with a flexible protocol for entering orders that can be routed to other exchanges if necessary.

32. What interfaces are used for market making?

Market Making firms may use SQF or QUO:

- **SQF** – Highly efficient bulk quoting interface that allows market makers to enter up to 200 quotes in one message.
- **QUO** - NASDAQ OMX protocol based on OUCH technology, provides market makers with a fast and efficient order based protocol for market making

33. How do firms mark their orders as "do not route?"

Order Entry Firms using FIX that want to mark an order as "do not route" should populate the "ExecBroker" field (Tag 76) with "DNR".

QUO orders and SQF sweeps are never routable.

34. How do firms mark their orders as routable?

Firms should populate the "ExecBroker" field (FIX Tag 76) with "SEEK" or "SRCH" if they want their order to be routed to better prices on other exchanges.

QUO orders and SQF sweeps cannot be routed. Market makers who wish to take advantage of the NOM routing functionality may use the FIX interface.

35. What interfaces support Order Price Protection?

The FIX order entry interface supports Order Price Protection. Refer to questions 16 and 17 for more information on Order Price Protection.

36. Does NOM offer an order type that does not remove liquidity (e.g. post only or adding liquidity only orders)?

Yes. NOM offers a Post Only order type that will never remove liquidity and never route.

37. If a Post Only or is received that locks or crosses the NBBO or an order/quote on the NOM book, is the order rejected?

A firm may be configured for Post Only order repricing or Post Only order reject. If the firm is configured for repricing, the order will be repriced anytime it would lock or cross the NBBO or an order/quote on the NOM book. If the firm is configured for Post Only order reject, the Post Only order will be rejected anytime it would lock or cross the NBBO or an order/quote on the NOM book.

38. How does a firm set the configuration for the Post Only order Reprice vs. Reject?

To set the Post Only Reprice vs. Reject configuration a firm should contact Subscriber Services at +1 212 231 5180.

39. How does a firm designate an order as Post Only?

Firms using FIX should populate the "ExecBroker" field (FIX tag 76) with "POST".

Firms using QUO should populate "Display" with offset 66 = P

40. May firms other than market makers use Post Only on QUO?

Market makers may use QUO to make markets and remove liquidity. Effective December, 3, 2018 all other participants using QUO will be rejected when attempting to enter orders over QUO with a capacity other than Market Maker.

41. How should my firm populate the participant type (FIX Tag 47 Rule 80A/OrderCapacity) on FIX orders?

Firms must populate FIX Tag 47 Rule 80A/OrderCapacity properly. Below is a table of the current values. Please refer to the FIX spec:

Code	Description	OCC Clearing
C	Public Customer i.e. Non-professional, non-broker-dealer	Clears as Customer
B	Broker-Dealer Order	Clears as Customer
F	Firm – OCC member Broker-Dealer Proprietary	Clears as Firm
M	NOM Registered Market Maker	Clears as Market Maker
O	Away Exchange Registered Market Maker	Clears as Market Maker
P	Professional, non-broker-dealer	Clears as Customer
J	Joint Back Office	Clears as Firm

42. What interfaces are available to clearing firms for drop copy / clearing information?

NOM offers Drop Copies and a Clearing Trade Interface.

DROP Copies - NOM provides drop copies of all executions that occur on NOM. The drop copies are provided via a flexible configuration — per clearing member number, by participant MPID or by participant port.

CTI - NOM offers the same Clearing Trade Interface (CTI) that is offered on PHLX and BX Options which provides firms with a copy of executions that contain information similar to what is sent to the OCC for clearing.

43. How do firms reconcile open Good-Til-Cancelled (GTC) orders on a daily basis?

A daily open order report is available to firms for reconciliation of open GTC orders. The report is available in the same format as the BX Options and PHLX Open Order reports.

44. How can firms associate NOM executions with the OCC Trade Capture Report output?

The "Token" field in a NOM execution message equates to the "Order-Token" field provided on the order when it was originally submitted to NOM ("ClOrdID" in FIX, "OrderToken" in QUO, and Order ID in CTI).

This field is passed through to the OCC in the "ClOrdID" field of the OCC trade record and can be used to identify executions associated with particular orders submitted to NOM.

45. Which field should be used if the entering firm would like to use a CMTA to clear the trade to a different clearing firm?

The CMTA clearing number can be entered in the "ClearingFirm" field (FIX tag 439).

46. Which FIX Field corresponds to "Sub Account/Position Account" on the OCC Trade Record?

"Sub Account/Position Account" is sometimes referred to as "Market Maker ID" or "Badge #" and is usually a three-character alpha-numeric acronym. The "Clearing Account" field (FIX Tag 440) corresponds to the OCC "Sub Account/Position Account" field.

47. How can firms perform post-trade allocations or transfers for trades executed on NOM?

NOM offers the Options Maintenance Tool to firms that need to perform post-trade allocations or transfers. Firms can subscribe to the Options Maintenance Tool by completing the NASDAQ OMX Front-End Access Order Form and faxing it to NASDAQ OMX Subscriber Services at +1 212 231 5426 or by calling + 1 215 496 1571.

48. What methods can a Participant use to submit Contrary Exercise Advice notices?

A Contrary Exercise Advice (CEA) may be submitted by a Participant by using the Clearing Corporation's ENCORE system, a CEA form of any other national securities exchange of which the firm is a Participant and where the option is listed, or by sending an email to NOMSurveillance@nasdaqomx.com.

Refer to Chapter VIII, Section 1 in the NOM rules for CEA cut-off times.

49. Where can I get a summary of my firm's billing?
The NDAQOptions.com website provides firm-specific execution and invoice data. Historical information includes accounting reports such as billing invoices and invoice charge details. Please contact NDAQOptions@nasdaqomx.com to gain access.

50. What are the market maker requirements on NOM?
Market Makers should refer to Chapter VII of the NOM rules for market maker obligations. In summary, market makers have several obligations:

- Provide continuous two-sided liquidity for options overlying the securities for which the market maker is registered for 60% of the trading day (as a percentage of the total number of minutes in such trading day). This obligation will apply to all of a Market Maker's registered options collectively to all appointed issues, rather than on an option-by-option basis.

    Except: Market makers are not required to provide two-sided quotes in options with an expiration that is greater than nine months away, quarterly options, or options with a non-standard contract

- Maximum quote width of $5.
- Ensure that at least 75% of the market maker's trading activity on NOM is in options in which they are registered as a MM on NOM.

51. Can NOM market makers register by series?
No. NOM market makers are required to register by underlying.

52. Do Market Makers have a maximum quote width requirement at the open?
Yes, the $5 maximum quote width requirement applies at all times. Quotes with a width wider than $5 are not considered valid quotes and do not satisfy quoting obligations. Market maker quotes that are wider than the $5 requirement will be considered a violation.

53. Can a market maker or specialist on another exchange send NOM orders with a capacity of "M"?
Away exchange registered market makers (i.e. market makers on other exchanges who are not NOM market makers) who send orders to NOM must populate FIX Tag 47 (Rule80A/OrderCapacity) with "O".

Additionally, market maker firms should be sure to populate the "Clearing Account" field with their market maker sub-account ID (sometimes referred to as "Badge #" or "Market Maker ID").

54. Does NOM offer market data products/feeds?
NOM offers the following proprietary data feeds:

NASDAQ ITCH To Trade Options (ITTO) – Designed to provide full order depth of NOM using a series of order messages to track the life of an order. ITTO also supports last sale information and Net Order Imbalance data for the NOM opening auction. ITTO is identical to BX Depth.

Best of NASDAQ Options (BONO) – Disseminates the NOM Best Bid and Offer information as well as NOM last sale information — the same information NOM reports to OPRA. By subscribing to BONO directly from NOM, participants can eliminate any extra transmission and processing latencies introduced by the securities information processor. BONO is identical to BX Top (BX Options) and TOPO (PHLX).

55. How does NOM access other Options exchanges?
The NASDAQ Options Market uses NASDAQ Execution Services (NES), a broker-dealer, to access the different options exchanges.

56. How does the NOM Opening Auction work?
The NOM Opening Auction collects all pre-market quotes and orders and matches all eligible interest at the price at which any imbalance is minimized and matched contracts are maximized. Beginning at 9:25:00 a.m., ET, indicative prices, paired contract volume and imbalance contract volume are disseminated every five seconds until the option opens for trading.

NOM will open an option for trading after 9:30 a.m. in a given symbol once the underlying symbol is open and a Valid Width NBBO is present. A Valid Width NBBO is defined as the best available bid/ask spread, comprised of all NOM-registered Market Maker orders and quotes and all away market quotes that are eligible for trading and meet a specified bid/ask differential as determined by the Exchange. The Valid Width NBBO values can be found on the NOM System Settings page.

57. What happens if there is no Valid Width NBBO present?
If a Valid Width NBBO is not present and there is no trade possible, NOM will open the option when a certain number of away markets have disseminated a firm quote on OPRA or a certain period of time has elapsed. These values can be found on the NOM System Settings page. NOM will not open with a trade if there is no Valid Width NBBO present.

58. How does NOM determine if the underlying security is open?
An underlying is considered open when there is either a post-9:30 quote or trade from the primary listing market for the underlying.

59. What happens to marketable orders if they are not executed in the opening auction?
Once the auction occurs, orders that are marketable against the NBBO but not executable in the opening auction will be routed to better-priced away exchanges or posted on the NOM book (depending on whether they are routable (SEEK or

SRCH) or Do Not Route (NSDO) orders).

60. Will NOM cancel my orders if it is unable to open a symbol?

The NOM opening process includes an **Opening Order Cancel Timer**. Firms may elect to have orders canceled back to them when NOM has not opened in a symbol and the primary underlying market has been open for a period of time. The Opening Order Cancel Timer setting is available on the NOM System Settings page. Firms can elect this feature by contacting Subscriber Services.

61. Does NOM have a Closing Auction?

No. NOM simply ceases trading at the close of the trading day.

62. How does a firm know when NOM is open?

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.

63. What testing opportunities are available?

Customer testing is available daily.

In order to access the Test Facility, firms should complete the Options Port Request Form and submit it to NASDAQ OMX Subscriber Services via fax at +1 212 231 5426. Once the port is configured and connectivity is established, firms should contact NASDAQ OMX Trading Services at + 1 215 496 1571 to coordinate the testing.

64. How can my firm become a NOM member and trade on NOM?

To **trade** on NOM, firms must be NASDAQ members. Visit the membership website for more details.

In addition, firms must submit the Options Participant Application.

Firms need to complete a clearing Letter of Guarantee for self-clearing or non self-clearing firms which should be submitted along with the Application.

Please submit to the NASDAQ OMX Membership Department:

NASDAQ OMX Membership Department
1900 Market Street, 2nd Floor
Philadelphia, PA 19103

Documents may also be submitted in PDF format via email to:
Membership@nasdaqomx.com

Once approved for participation, firms should complete an Options Port Request Form and fax it to NASDAQ OMX Subscriber Services at +1 212 231 5426.

NOM Participants should contact the Membership Department via email at membership@nasdaqomx.com to request a NOM trading account number.

65. Who can I contact for real time trade and technical support?
NOM Market Operations: +1 215 496 1571 or NOMOptions@NASDAQOMX.com