Overview

Resting orders with the non-displayed swap instruction (NDS) can execute in circumstances where they would otherwise lock with Post Only contra-side orders. NDS unlocks resting orders, enabling them to be liquidity removers in certain circumstances. With NDS, execution opportunities are increased by providing a means for non-displayed resting orders to execute against Post Only contra-side orders that would otherwise be bypassed.

Order Types that can use NDS

> Hidden Limit Orders
> Mid Peg Orders
> Hidden Primary Peg Orders
> Market Peg Orders

Behavior

NDS orders, if executed upon arrival, will always be removers of liquidity. Resting orders with the NDS instruction will become liquidity removers when incoming Post Only orders would otherwise lock with them.

> Non-displayed orders without NDS may cede priority to resting NDS orders. Specifically, a later-arriving NDS order will execute instead of the earlier-arriving equally priced order lacking the NDS instruction, whenever the contra-side is a Post Only limit order at the same price. A displayed order will never cede priority to an order with an NDS instruction.

> Once NDS orders are resting on the book, executions can occur as follows:
> > If a liquidity swap is required in order to execute, NDS orders will be subject to the liquidity removal fee.
> > If NDS orders can trade with Post Only contra-side orders eligible to remove liquidity, resting NDS orders then execute as liquidity adders and do not liquidity swap.
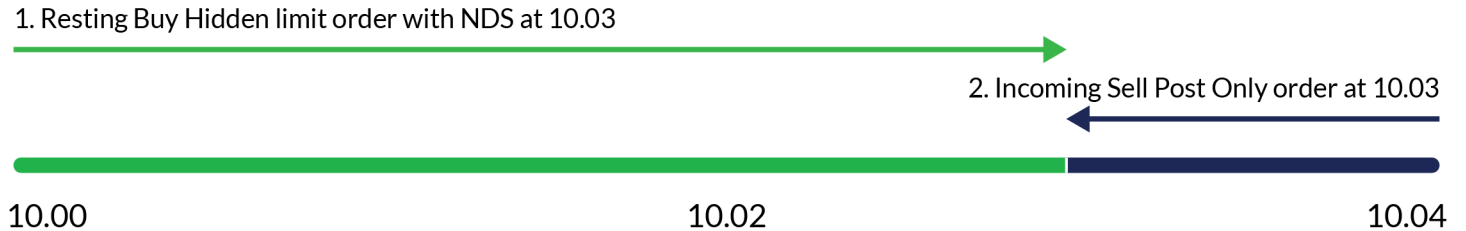
Technical Details

Members may utilize the NDS functionality on EDGX using either FIX or BOE by sending the following instructions:

BOE Field	FIX Tag	Req'd	Comments
RoutingInst	9303	Y	N = Non-Displayed Swap
DisplayIndicator	9479	Y	I = Hidden
OrdType	40	N	2 = Limit, P = Pegged

NDS Examples

### Example 1: NDS Liquidity Swaps against Contra Post Only

1. Resting Buy Hidden limit order with NDS at 10.03

2. Incoming Sell Post Only order at 10.03

10.00   10.02   10.04

1. Resting Buy Hidden limit order with NDS instruction at 10.03 for 100 shares

2. Incoming Sell Hidden Post Only at 10.03 for 100 shares.

The resting Hidden order with NDS instruction will liquidity swap and execute at 10.03. The resting order swaps to pay a take fee and the incoming order is paid a rebate. The resting NDS order instruction is used to allow execution against a Post Only contra order that would otherwise lock with it. If the contra sell had not been a Post Only order, the NDS order would not liquidity swap and would receive a rebate.

Example 2: NDS Queue Priority

1. Resting Buy Hidden order at 10.02

2. Resting Buy Mid Peg order with NDS instruction at 10.02

3. Incoming Sell Hidden Post Only order at 10.02

10.00   10.02   10.04
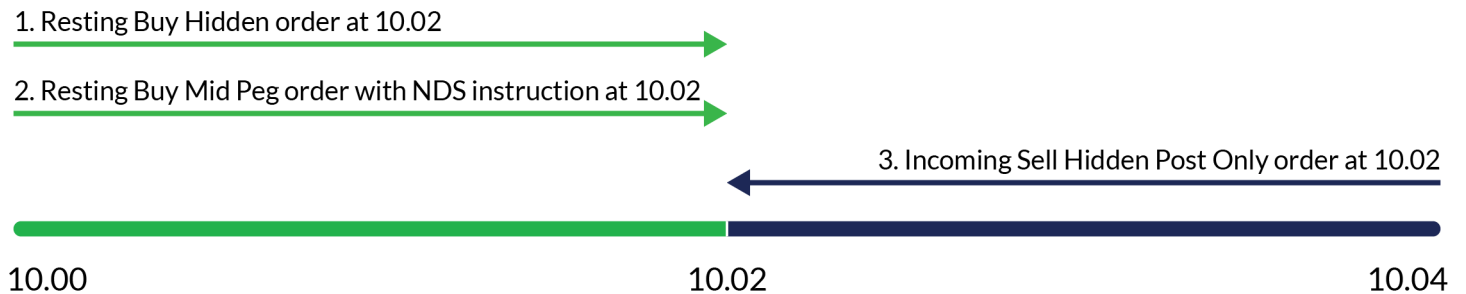
1. Two Resting orders on the book

    a. Order 1: Resting Buy Hidden order at 10.02 for 200 shares

    b. Order 2: Resting Buy Mid Peg order with NDS instruction at 10.02 for 100 shares

2. Order 3: Incoming Sell Hidden order at 10.02 for 400 shares.

The resting Mid Peg order with the NDS instruction trades with the incoming sell Hidden Post Only order for 100 shares at 10.02. The resting buy Mid Peg order is able to trade, since the buy Hidden order cannot trade and also cedes queue priority. Order 1 is primarily a rebate seeking order and not willing to liquidity swap for executions. The remaining 300 shares are posted to the book at 10.02.

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