

Opening Cross Enhancements

The Nasdaq Opening Cross leverages Nasdaq's technology, liquidity and market structure to provide participants and investors with robust, timely and transparent prices at market open. Providing unparalleled transparency, Nasdaq disseminates detailed and continuous information regarding the imbalances and indicative prices via the Net Order Imbalance Indicator (NOII).

Currently, Nasdaq creates a collar around the opening price. Nasdaq bounds the opening and closing crosses by taking 10% of the Nasdaq Best Bid/Offer midpoint and subtracting that number from the bid and adding it to the offer to create the boundary. The execution price of the cross will be within this boundary at all times.

To complement the current price boundaries, Nasdaq plans to implement additional protections to ensure price continuity in the opening cross. The new protections will check the cross price against multiple reference prices to determine whether the cross price falls within a reasonable range from normal trading in the security. If the cross mechanism determines that the cross price is too far from the reference prices, all orders in the cross will be cancelled and regular market hours trading will begin.

OPENING CROSS TIMELINE

4:00 a.m. ET	Trading and Order Entry begins
9:25 a.m.	Nasdaq opens/enters quotes for participants with no open interest
9:28 a.m.	Dissemination of imbalance information begins
9:30 a.m.	The Opening Cross occurs

The new opening cross protections are as follows:

- 1** Nasdaq will compare the cross price of the security to the previous close price. If it falls within an acceptable price range relative to the previous close, the cross transaction will proceed. If it is outside of an acceptable price range, Nasdaq will further evaluate the cross against check two, below.
- 2** Nasdaq will compare the cross execution price to the last pre-market trade that occurred after 9:15 a.m. ET. If it is within a threshold acceptable price range relative to the last sale, the cross will execute. If this check does not meet the set criteria, Nasdaq will further evaluate the cross against a third and final check, below.
- 3** Nasdaq will compare the cross execution price to the Nasdaq Best Bid and Offer as follows, if both of the previous price protections have failed:
 - a. If the cross execution is higher than the previous close, the cross will be allowed to execute if within the range of the Nasdaq Best Bid.
 - b. If the cross execution price is lower than the previous close, the cross will be allowed to execute if it is within the range of the Nasdaq Best Offer; otherwise, all cross orders are cancelled and continuous regular hours trading begins.

Nasdaq will determine the acceptable range for each of the checks, mentioned above, and will post on [NASDAQTRADER.COM](https://www.nasdaqtrader.com).

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