



## Cboe Global Markets to Introduce Cboe Opening Auction Feed Effective July 9, 2018

**Reference ID:** C2018060103

### **Overview**

Cboe Global Markets is pleased to announce the introduction of the Cboe Opening Auction Feed, which will be launched on Cboe Options Exchange (“Cboe Options”) effective **Monday, July 9, 2018**. The Cboe Opening Auction Feed will provide market participants with a view of auction and imbalance information over a separate multicast market data feed delivered through the Cboe CSM platform. The Cboe Opening Auction Feed has been developed to extend visibility into Cboe Options opening auction process to a wider audience and will be provided free of charge.

Currently, opening auction information for Cboe Options is delivered via the Cboe CSM BBO feed through Expected Opening Information (“EOI”) messages, such as Expected Opening Price/Size (“EOP/EOS”) and Need More Buyers/Need More Sellers. The Cboe Opening Auction Feed has been designed to make this information more widely available as a separate, streamlined multicast market data feed for firms to consume more efficiently for only those options symbols driving the volatility derivatives settlements, without having to receive the entire BBO feed. As a note, the Cboe Opening Auction Feed will not deliver information for any other auctions (e.g., COA, AIM, HAL).

In addition to EOI messages, the Cboe Opening Auction Feed will include pre-open top of book bid/ask in order to provide a comprehensive view of auction activity leading up to the open. The pre-open quotes will be disseminated until the conclusion of the opening process. At that point, the state for the option will change from “rotation” to “open”.

With the launch of the Cboe Opening Auction Feed, Cboe will provide:

- A consolidated view of opening auction information for SPX, SPXW, and RUT offered **free of charge** to attract liquidity and encourage participation in the opening process by a wider group of interested market participants.
- Efficient dissemination of opening auction information for Cboe Options, to equip market participants with information to make trading decisions and to resolve pre-open order imbalances.
- Access to opening auction information on expiration days for volatility index derivatives, including Cboe Volatility Index (VIX) options and futures.
- The ability to leverage existing connections to Cboe Options to also receive the Cboe Opening Auction Feed without the need for additional connectivity.

## Technical Details

The Cboe Opening Auction Feed will deliver pre-open quotes and HOSS messages, which can include Expected Opening Price/Size, size needed, and Need Quote to Open messages, all via a separate multicast channel using the current CSM protocol.

The details and dissemination frequency of the Cboe Opening Auction Feed are as follows:

Service	Pre-Open Quotes	Auction Information	Size Needed
Cboe Opening Auction Feed (Pre-Open Quotes + Auction Information + Size Needed)	Yes delivered in real-time	Yes delivered every 5 seconds	Yes delivered every 5 seconds

## HOSS Messages

The Hybrid Opening System (“HOSS”) disseminates EOI messages during the Pre-Open and Rotation States until the series move into the OPEN state. EOI messages contain information based on resting orders and quotes in the book, and those messages may include the EOP/EOS, any reason why a series may not open if the current conditions persisted when the series was to open (e.g., opening trade price would be outside OEPW range, need quote to open), and any imbalance information, including the size and side of an imbalance.

## Messages Disseminated During Pre-Open and Rotation States until OPEN

Dissemination of EOI messages over Cboe APIs (FIX, CMI2, Cboe BBO, the new Cboe Opening Auction Feed) and to the [Cboe Options website](#) begins at approximately 7:30 a.m. CT each trading day. These messages are disseminated over the APIs approximately every five (5) seconds during the pre-open state. In addition, EOI messages are published to Cboe Options [website](#) on expiration days for VIX derivatives approximately every six (6) seconds or less prior to the completion of the opening process.

A description of the EOI messages that may be disseminated via the Cboe Opening Auction Feed include:

- **Expected Opening Price/Size (“EOP/EOS”)**

These messages are sent for series that have a quantity to trade at the open and are sent when the system has calculated that a trade will occur at the opening under current conditions. EOP/EOS messages provide information as of a point in time prior to the series moving into the OPEN state. EOP/EOS messages are not designed to be used as a proxy for the prices of the constituent option series that will be used to calculate the final settlement value for expiring volatility index derivatives.

- **Need More Buyers/Need More Sellers**

These messages indicate that more liquidity is needed. Additional liquidity is needed if the quantity to buy (sell) represented by orders and quotes that are entitled to a fill at the current price exceed the available quantity to sell (buy) at that price. The Quantity field displays the additional quantity needed to successfully open the series, and the Price field displays the widest price at which the series is allowed to open given the current mix of orders and quotes.

- **Need Quote to Open**

These messages are sent when the best quote bid/ask is either not present or too wide to open under rules governing allowable quote width.

**IMPORTANT:** For each series, the last quote disseminated prior to the open represents the best market prior to OPG orders being cancelled. It is important to understand that series are eligible for inclusion in the special opening quotation (“SOQ”) only if there is remaining buy interest (i.e., “non-zero” bid) at the conclusion of the opening rotation. In cases where remaining buy interest consists of OPG buy orders, the first OPRA quote may show a ‘0’ bid, yet the series may be included in the settlement calculation due to the existence of remaining buy OPG interest at the conclusion of the opening rotation. All OPG orders are cancelled after the rotation is completed but prior to the first quote dissemination to OPRA.

### **Accessibility**

The Cboe Opening Auction Feed will be available in Cboe Options’ datacenter (Equinix NY4), and will be accessible via the same physical connectivity that is used to access Cboe Options. Recipients will have the ability to subscribe to the feed directly via a separate Multicast channel from the current CSM feeds. Market participants who have existing physical connectivity to Cboe Options will be able to leverage those connections to access the Cboe Opening Auction Feed as well, dependent upon available bandwidth.

### **Data Requests**

To order the Cboe Opening Auction Feed, please submit a [Cboe Exchange Data Order Form and System Description](#) to Cboe Market Data Services at [marketdata@cboe.com](mailto:marketdata@cboe.com) selecting the applicable service.

### **Additional Information**

For additional information on the Cboe Opening Auction Feed, the Hybrid Opening System (HOSS) process, or Settlement Information for VIX Derivatives, please refer to the following websites and technical specifications:

- [Expected Opening Information Messages for Hybrid Opening System \(HOSS\)](#)
- [Settlement Information for VIX Derivatives](#)
- [CFN Network Specification](#)
- [Cboe Opening Auction Feed Specification](#)

We appreciate your continued support and will work hard every day to keep earning your business by powering your potential to stay ahead of an evolving market. Please contact the Cboe Operations Support Center, or your [Business Development Manager](#) at 212.378.8560 for any additional information regarding the Cboe Opening Auction Feed.

### **Cboe Operations Support Center**

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