Market Notice

TO: ErisX Members and Participants

FROM: Eris Exchange Market Operations Department

NOTICE: #19-10MN

DATE: September 18, 2019

SUBJECT: Notification of New FIX Functionality on the ErisX Matching Engine

<p style="text-align:center; color:red;">Please see revised Production date below.</p>

This Market Notice serves to notify Participants of Eris Exchange, LLC ("Eris Exchange" or "Exchange") that the Exchange will be making changes to the ErisX Matching Engine. This change will improve performance as well as offer new functionality.

New Release & Production Launch Dates:

New Release: Currently available
Production (expected): Oct 11, 2019

Impact to Firms:

- **Performance**

The match engine system is being upgraded which will result in performance improvements. Performance tests have shown improvements of up to 40% in round trip times at the median.

- **Persistence**

As noted in our FIX 44 Spec V1.4 Section 4.1, our production environment currently does not support any persistence. This forces all sessions to initiate each new connection with a sequence number of 1. There is no support for ResendRequests allowing a session to request any missed messages due to network or unexpected disconnection.

This update will add support for persistence but clients are not required to make any code changes unless they wish to utilize the functionality.

A FIX session, once created will persist across multiple sequential connections. The outbound sequence numbers of a new connection will continue from the current position of the persistent session. On reconnect the client can use the logon confirmation message sequence number to detect a gap since the last received message. If the client detects a gap, the client application can request all missed messages using a ResendRequest.

All available requested messages will be resent with updated SendingTime(52), OrigSendTime(122) included, PossDupFlag(43) field set to 'Y' and recalculated CheckSum value. A SequenceReset message will be sent in lieu of the administrative messages or when messages are no longer available. Clients should avoid submitting subsequent ResendRequest messages. This will simply replace the prior ResendRequest resulting in a delay of normal processing.

Clients can continue to send tag ResetSeqNumFlag(141)=Y in Logon message to indicate that both sides of the FIX session should reset sequence numbers.

- **ResendRequest**

The ResendRequest message can be used to request a single message, a range of messages or all messages subsequent to a particular message.

Tag	Field Name	Required	Comments
	Standard Header	Y	MsgType tag 35 = 2
7	BeginSeqNo	Y	First sequence number in the range to be resent.
16	EndSeqNo	Y	Last sequence number in the range to be resent. For single message resend requests, set BeginSeqNo = EndSeqNo. If request is for all messages subsequent to a particular message, EndSeqNo = 0.
	Standard Trailer	Y	

- **SequenceReset**

The SequenceReset message is used to respond to the ResendRequest message sent by the client in lieu of the administrative messages or when the requested messages are no longer available to be resend.

Tag	Field Name	Required	Comments
	Standard Header	Y	MsgType tag 35 = 4

123	GapFillFlag	N	Indicates that the Sequence Reset message is replacing administrative or application messages which will not be resent. N=Sequence Reset Y=Gap Fill Message, NewSeqNo field must have a value
36	NewSeqNo	Y	New sequence number
	Standard Trailer	Y	

Testing:

This new functionality is currently available for testing in the New Release environment. The functionality being deployed is backward compatible so no changes are required when it's released into Production. However, it is important that you run your usual regression tests to make sure you are not unexpectedly impacted.

Contact Information:

If you have any questions regarding this Exchange notice, please contact ErisX Market Operations at (888) 782-7481, Option 1, or market.operations@erisx.com.