SIAC

SECURITIES INDUSTRY AUTOMATION CORPORATION
20 Broad Street, New York, NY 10005

February 2, 2015

TO: OPRA Multicast Data Recipients

SUBJECT: New OPRA Early Extended Trading Session

What's New:

This notification is to advise OPRA Data Recipients to the availability of a new early extended trading session on OPRA, **beginning on March 2, 2015**. The early extended trading session will be offered on new multicast lines **with a separate SFTI entitlement required**.

Details:

The Chicago Board Options Exchange (CBOE) will be the first Participant to report early extended trading session data to OPRA. Other options exchanges may participate in the future. Three products will initially be traded during the early extended trading session, the symbols are as follows: **SPX, SPXW** and **VIX**. Four new multicast lines will be used, **Lines 91-94** (entitlement will be for eight multicast lines; however lines 95-98 will be inactive, reserved for future expansion). The symbol distribution will be as follows:

Line	OPRA Early Extended Hours Symbol Distribution											
	Security Symbol					Exp Mo	Security Symbol					Exp Mo
91	A						S	P	X			L
92	S	P	X			M	T	Z	Z	Z	Z	X
93	U						V	I	X			L
94	V	I	X			M	Z	Z	Z	Z	Z	X

Early extended trading session data will be disseminated over OPRA between **3:00 A.M. – 9:15 A.M., ET**, Monday through Friday, **over a separate dedicated set of multicast lines**.

Production Group A Assignements			Production Group B Assignements		
Stream A Line Name	Multicast Group ID	Destination UDP Port Number	Stream B Line Name	Multicast Group ID	Destination UDP Port Number
OPRA 91	224.0.86.0	11301	OPRA 91	224.0.86.128	12301
OPRA 92	224.0.86.1	11302	OPRA 92	224.0.86.129	12302
OPRA 93	224.0.86.2	11303	OPRA 93	224.0.86.130	12303
OPRA 94	224.0.86.3	11304	OPRA 94	224.0.86.131	12304
OPRA 95*	224.0.86.4	11305	OPRA 95*	224.0.86.132	12305
OPRA 96*	224.0.86.5	11306	OPRA 96*	224.0.86.133	12306
OPRA 97*	224.0.86.6	11307	OPRA 97*	224.0.86.134	12307
OPRA 98*	224.0.86.7	11308	OPRA 98*	224.0.86.135	12308

Retransmission Group Assignments			Playback Test Group Assignments		
Line Name	Multicast Group ID	Destination UDP Port Number	Line Name	Multicast Group ID	Destination UDP Port Number
OPRA 91	224.0.86.8	13301	OPRA 91	224.0.86.136	14301
OPRA 92	224.0.86.9	13302	OPRA 92	224.0.86.137	14302
OPRA 93	224.0.86.10	13303	OPRA 93	224.0.86.138	14303
OPRA 94	224.0.86.11	13304	OPRA 94	224.0.86.139	14304
OPRA 95*	224.0.86.12	13305	OPRA 95*	224.0.86.140	14305
OPRA 96*	224.0.86.13	13306	OPRA 96*	224.0.86.141	14306
OPRA 97*	224.0.86.14	13307	OPRA 97*	224.0.86.142	14307
OPRA 98*	224.0.86.15	13308	OPRA 98*	224.0.86.143	14308

***Inactive – reserved for future expansion

In addition, a new **Session Indicator** field (replacing the former Reserved field) is introduced to the Block Header of all messages as follows:

BLOCK HEADER:

Field Name	Length (bytes)
Version	1
Block Size	2
Data Feed Indicator	1
Retransmission Indicator	1
Session Indicator (formerly Reserved)	1
Block Sequence Number	4
Messages In Block	1
Block Timestamp	8
Block Checksum	2
Total Length:	**21**

SESSION INDICATOR: 1 Byte**, unsigned integer. Value is as follows:**

- ➤ Hex 0 (0x00) = only used during Regular OPRA Session (unchanged value)
- ➤ ASCII 'X' = only used during Pre-Market Extended Session (new value)

Early Extended Hours Timeline

The following is the timeline associated with early extended hours, as follows:

2:30 a.m.   Early Extended Start of Day message on lines 91-94

2:45 a.m.   Early Open Interest messages

3:00 a.m.   Extended Session Begins

9:15 a.m.   Extended Session Ends

Entitlement Process for OPRA Lines 91-98 (Lines 95-98 are inactive; reserved for future expansion)

In order to be entitled for the new OPRA early extended hours trading feeds, you will require connectivity into multicast VLAN 10. Below are two methods which can be followed to facilitate the provisioning request for this new feed.

1. You can submit a request by logging into the SFTI portal (www.nyxdata.com/Connectivity) and click "Request Service Change." Should you need an account set-up for access to the SFTI Portal or have any further questions, please contact the SIAC Service Desk at 866-873-7422.

2. Alternatively, you may contact a SFTI sales representative (SFTI-Info@nyx.com) for a "Request Service Change" and they will facilitate the request for you to connect to multicast VLAN 10.

Note: Be advised that up to ten (10) business days are required to establish connectivity to the service after your request has been accepted by SFTI.

Documentation

The revised OPRA Data Recipient Interface Specification (version 1.7) , as well as the revised Common IP Multicast Specification (version 1.40) reflecting the changes associated with the new early extended trading session, can be obtained at:
http://www.opradata.com/specs/opra_binary_dr_spec_version_1_7_062614.pdf and
http://www.opradata.com/specs/ipmspecv1_40_062614.pdf.

Testing Scheduling

Replay files with sample OPRA early extended hours data will be available commencing the week of July 21, 2014. Test data will be disseminated over the new Production, Playback Test, and Retransmission Lines 91-94 addresses, Monday - Friday from **9:00 – 9:15 p.m. ET**.

Technical Questions

If you have any OPRA technical questions on early extended hours, please send an email to CQS-CTS-OPRA@siac.com, or contact the Service Desk at 866-873-7422.

Business Questions

For questions related to the CBOE extended session products and trading please contact Tom Knorring, Knorring@cboe.com .

If you have any OPRA administrative questions on early extended hours, please contact opra@cboe.com.