#### March 19, 2020

To: OPRA Multicast Subscribers

Subject: New OPRA Symbol Distribution – **Effective April 6, 2020** 

#### What You Need To Know

The symbol distribution for the Options Price Reporting Authority (OPRA) is being modified.

## **Changes Being Made**

OPRA multicast lines 41-48 are the only lines being modified. The remaining multicast lines will remain unchanged. Please see the revised distribution chart below.

Reference the attached Appendix 'B' from the OPRA Data Recipient Specification for the current and new OPRA symbol routing.

#### When it is Changing

OPRA will employ a new symbol distribution at the start of day Monday, April 6, 2020.

#### **Evening Test Schedule**

OPRA replay test data for the new symbol distribution will be available beginning on **Monday, March 23, 2020,** and then disseminated business weekdays from 9:15 p.m. – 9:30 p.m. ET from the multicast Playback Test channels (not over Production channels).

To coordinate testing, and to provide verbal or written confirmation of testing (which is required of all OPRA Subscribers), please register by e-mailing your name, organization name, phone number, and date of test(s) to: <a href="mailto:CQS-CTS-OPRA@siac.com">CQS-CTS-OPRA@siac.com</a>. Indirect Data Recipients must also contact their service provider to coordinate testing.

# **Confidence Test**

A Confidence test will take place on Saturday, April 4, 2020 from 9:00 am ET to 11:00 am ET.

## APPENDIX B: OPRA TRAFFIC DISTRIBUTION

**OPRA** messages are disseminated over multiple IP Multicast lines as follows:

- REGULAR SESSION: Equity and index options traffic is on OPRA 1 through 48
- EXTENDED SESSION: Equity and index options traffic is on EXTENDED SESSION 91 through 94

Traffic will be routed over the IP Multicast lines as follows:

# 1. **REGULAR SESSION**: Generated on 48 line network:

#### **OPRA 4:**

- All Equity and Index Administrative messages, including Flex messages
- Any symbol with a numeric in first character

## **ALL 48 Lines (1-48)**:

- All Control messages
- For Equity and Index Last Sale, Long, Short Equity, Expanded Short Equity and Index Quote, Open Interest, Equity and Index End of Day Summary and Underlying Value messages, traffic is routed by the Security Symbol to assigned lines, according to the following routing rules:

# **APPENDIX B: OPRA TRAFFIC DISTRIBUTION (Current)**

			Cı	irrent Sym	bol Distribu	ıtion - Effe	ctive: March 9, 2020					
	Beginning Range:	<b>Expiration Months</b>						Expiration Months				
T.		Odd Calls					Ending Range:	Odd Calls	Even Calls	Odd Puts		
Line	Security Symbol	(Jan-Mar- May-Jul-	(Feb-Apr- Jun-Aug-	(Jan-Mar- May-Jul-	(Feb-Apr- Jun-Aug-		Security Symbol	(Jan-Mar- May-Jul-	(Feb-Apr- Jun-Aug-	(Jan-Mar May-Jul-	(Feb-Apr- Jun-Aug-	
		Sep-Nov)	Oct-Dec)		Oct-Dec)			Sep-Nov)	Oct-Dec)	Sep-Nov)	Oct-Dec)	
1	A	X	X	X	X		ABQZZ	X	X	X	X	
2	ABR	X	X	X	X		ALBZZ	X	X	X	X	
3	ALC	X	X	X	X		AMZMZ	X	X	X	X	
4	AMZN	X					AMZN	X				
5	AMZN		X				AMZN		X			
6	AMZN			X			AMZN			X		
7	AMZN				X		AMZN				X	
8	AMZNA	X	X	X	X		AZZZZ	X	X	X	X	
9	В	X	X	X	X		BJZZZ	X	X	X	X	
10	BK	X	X	X	X		BKNG	X	X			
11	BKNG			X	X		CF	X	X	X	X	
12	CFA	X	X	X	X		CMHZZ	X	X	X	X	
13	CMI	X	X	X	X		CSCNZ	X	X	X	X	
14	CSCO	X	X	X	X		DDZZZ	X	X	X	X	
15	DE	X	X	X	X		DRMZZ	X	X	X	X	
16	DRN	X	X	X	X		ESTBZ	X	X	X	X	
17	ESTC	X	X	X	X		FBBZZ	X	X	X	X	
18	FBC	X	X	X	X		GDXIZ	X	X	X	X	
19	GDXJ	X	X	X	X		GOOG	X	X	Λ	Λ	
20	GOOG	Λ	Λ	X	X		GTLRZ	X	X	X	X	
21		X	X	X	X		IBAZZ	X	X	X	X	
	GTLS											
22	IBB	X	X	X	X		ITVZZ	X	X	X	X	
23	ITW	X	X	X	X		JBKZZ	X	X	X	X	
24	JBL	X	X	X	X		KO	X	X	X		
25	KO				X		LUUZZ	X	X	X	X	
26	LUV	X	X	X	X		MGOZZ	X	X	X	X	
27	MGP	X	X	X	X		MSLZZ	X	X	X	X	
28	MSM	X	X	X	X		NFLX	X	X			
29	NFLX			X	X		NUGT	X	X			
30	NUGT			X	X		ORHZZ	X	X	X	X	
31	ORI	X	X	X	X		PPBZZ	X	X	X	X	
32	PPC	X	X	X	X		QQQ	X	X			
33	QQQ			X	X		ROKU	X	X			
34	ROKU			X	X		SE	X	X	X	X	
35	SEA	X	X	X	X		SOXKZ	X	X	X	X	
36	SOXL	X	X	X	X		SPXZZ	X	X	X	X	
37	SPY	X					SPY	X				
38	SPY		X				SPY		X			
39	SPY			X			SPY			X		
40	SPY				X		SPY				X	
41	SPYA	X	X	X	X		TECKZ	X	X	X	X	
42	TECL	X	X	X	X		TPQZZ	X	X	X	X	
43	TPR	X	X	X	X		TWLNZ	X	X	X	X	
44	TWLO	X	X	X	X		UPRNZ	X	X	X	X	
45	UPRO	X	X	X	X		VMVZZ	X	X	X	X	
46	VMW	X	X	X	X		WMSZZ	X	X	X	X	
47	WMT	X	X	X	X		XLOZZ	X	X	X	X	
48	XLP	X	X	X	X		ZZZZZ	X	X	X	X	

# **APPENDIX B: OPRA TRAFFIC DISTRIBUTION (New)**

			Re	evised Sym	bol Distribu	ıtion - Effe	ective: April 6, 2020				
			Expiration						Expiration		
Line	Beginning Range:	Odd Calls (Jan-Mar-	Even Calls (Feb-Apr-				Ending Range:	Odd Calls (Jan-Mar-	Even Calls (Feb-Apr-	Odd Puts (Jan-Mar-	Even Puts (Feb-Apr- Jun-Aug-
Line	Security Symbol	May-Jul-	Jun-Aug-	May-Jul-	(Feb-Apr- Jun-Aug-		Security Symbol	May-Jul-	Jun-Aug-	May-Jul-	
		Sep-Nov)	Oct-Dec)	Sep-Nov)	Oct-Dec)			Sep-Nov)	Oct-Dec)	Sep-Nov)	Oct-Dec)
1	A	X	X	X	X		ABQZZ	X	X	X	X
2	ABR	X	X	X	X		ALBZZ	X	X	X	X
3	ALC	X	X	X	X		AMZMZ	X	X	X	X
4	AMZN	X					AMZN	X			
5	AMZN		X				AMZN		X		
6	AMZN			X			AMZN			X	
7	AMZN				X		AMZN				X
8	AMZNA	X	X	X	X		AZZZZ	X	X	X	X
9	В	X	X	X	X		BJZZZ	X	X	X	X
10	BK	X	X	X	X		BKNG	X	X		
11	BKNG			X	X		CF	X	X	X	X
12	CFA	X	X	X	X		CMHZZ	X	X	X	X
13	CMI	X	X	X	X		CSCNZ	X	X	X	X
14	CSCO	X	X	X	X		DDZZZ	X	X	X	X
15	DE	X	X	X	X		DRMZZ	X	Х	X	X
16	DRN	X	X	X	X		ESTBZ	X	X	Х	X
17	ESTC	X	X	X	X		FBBZZ	X	X	Х	X
18	FBC	X	X	X	X		GDXIZ	X	X	X	X
19	GDXJ	X	X	X	X		GOOG	X	X		
20	GOOG			X	X		GTLRZ	X	X	X	X
21	GTLS	X	X	X	X		IBAZZ	X	X	X	X
22	IBB	X	X	X	X		ITVZZ	X	X	X	X
23	ITW	X	X	X	X		JBKZZ	X	X	X	X
		X									Λ
24	JBL	Α	X	X	X		KO	X	X	X	v
25	КО		37		X		LUUZZ	X	X	X	X
26	LUV	X	X	X	X		MGOZZ	X	X	X	X
27	MGP	X	X	X	X		MSLZZ	X	X	X	X
28	MSM	X	X	X	X		NFLX	X	X		
29	NFLX			X	X		NUGT	X	X		
30	NUGT			X	X		ORHZZ	X	X	X	X
31	ORI	X	X	X	X		PPBZZ	X	X	X	X
32	PPC	X	X	X	X		QQQ	X	X		
33	QQQ			X	X		ROKU	X	X		
34	ROKU			X	X		SE	X	X	X	X
35	SEA	X	X	X	X		SOXKZ	X	X	X	X
36	SOXL	X	X	X	X		SPXZZ	X	X	X	X
37	SPY	X					SPY	X			
38	SPY		X				SPY		X		
39	SPY			X			SPY			X	
40	SPY				X		SPY				X
41	SPYA	X	X	X	X		TELLZ	X	X	X	X
42	TELM	X	X	X	X		TSL	X	X	X	X
43	TSLA	Х	X				TSLA	X	Х		
44	TSLA			X	X		TSLA			X	X
45	TSLAA	X	X	X	X		USOZZ	X	X	X	X
46	USP	X	X	X	X		WDCZZ	X	X	Х	X
47	WDD	X	X	X	X		XLPZZ	X	X	Х	X
48	XLQ	X	X	X	X		ZZZZZ	X	X	X	X

## 2. **EXTENDED SESSION:** Generated on a 4 line\* network:

## **OPRA 94:**

- All Equity and Index Administrative messages, including Flex messages
- Any symbol with a numeric in first character

# **ALL 4 Lines (91-94)**:

- All Control messages
- For Equity and Index Last Sale, Long, Short Equity, Expanded Short Equity and Index Quote, Open Interest, Equity and Index End of Day Summary and Underlying Value messages, traffic is routed by the Security Symbol to assigned lines, according to the following routing rules:

\*The Extended Session has 4 <u>active</u> lines (91-94) and 4 <u>inactive</u> lines (95-98), reserved for future expansion.

	OPRA Extended Symbol Distribution												
Line	Security Symbol				Expiration Month		Security Symbol					Expiration Month	
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

## **APPENDIX B: Traffic Distribution, continued**

- 3. The following applies to **both the REGULAR AND EXTENDED SESSIONS** 
  - Symbols containing only alpha characters will be routed according to the distribution table.
  - Symbols containing numeric will be routed based upon the alpha characters preceding the first numeric:
    - e.g., Non-Standard symbol 'STD1' will be routed to the line containing 'STD'
  - If a numeric is received in the first character, e.g., '1RSTU' it will be routed to Multicast Line as follows:

REGULAR SESSION: Line 4EXTENDED SESSION: Line 94

- If an Index message is generated for a symbol that is split by call/put it will be generated over the line designated for calls.
  - e.g., Index message for GLD will be sent over the line for calls

Note: The Index message for a symbol will be sent over the first line for calls.

#### **Selectively sent to Any Line:**

• Reset Block Sequence Number message (dependent upon line that requires the block sequence number to be reset)

Note: Data recipients are responsible for handling any symbol over any line. Redistribution of traffic will <u>not</u> occur intraday but can occur on a next day basis. Notification may <u>not</u> be sent to the data recipients regarding redistribution of traffic.