



DATE: May 4, 2020

To: OPRA Data feed Subscribers

To provide further information related to the OPRA multicast output dissemination issue on Friday, May 1, 2020, please find the information below in this document which contains both the regular symbol-to-output-line routing distribution as of May 1, 2020, along with the incorrect distribution used by the two misconfigured OPRA input servers (the “Impacted Servers”) from Start-of-Day to approximately 10:23 am ET (the “Impacted Period”). To the extent data was input to an Impacted Server, resultant multicast output would have followed the incorrect distribution during the Impacted Period.

Regular Symbol Distribution											
Line	Beginning Range: Security Symbol	Expiration Months					Ending Range: Security Symbol	Expiration Months			
		Odd Calls (Jan-Mar-May-Jul-Sep-Nov)	Even Calls (Feb-Apr-Jun-Aug-Oct-Dec)	Odd Puts (Jan-Mar-May-Jul-Sep-Nov)	Even Puts (Feb-Apr-Jun-Aug-Oct-Dec)			Odd Calls (Jan-Mar-May-Jul-Sep-Nov)	Even Calls (Feb-Apr-Jun-Aug-Oct-Dec)	Odd Puts (Jan-Mar-May-Jul-Sep-Nov)	Even Puts (Feb-Apr-Jun-Aug-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	B	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		FBZYZ	X	X	X	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
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		TELLZ	X	X	X	X
42	TELM	X	X	X	X		TSL	X	X	X	X
43	TSLA	X	X				TSLA	X	X		
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	X	X
47	WDD	X	X	X	X		XLPZZ	X	X	X	X
48	XLQ	X	X	X	X		ZZZZZ	X	X	X	X

Incorrect Symbol Distribution used by Impacted Servers					
Line	Beginning Range Security	Expiration Month		Ending Range Security	Expiration Month
1	A			ABSZZ	X
2	ABT			AGNZZ	X
3	AGO			AMZMZ	X
4	AMZN			AMZN	L
5	AMZN	M		AMZN	X
6	AMZNA			AYQZZ	X
7	AYR			BABA	L
8	BABA	M		BKNG	L
9	BKNG	M		CASZZ	X
10	CAT			CLR	L
11	CLR	M		CRLZZ	X
12	CRM			DAT	X
13	DATA			DNKMZ	X
14	DNKN			EOFZZ	X
15	EOG			FB	L
16	FB	M		GD	X
17	GDA			GOOG	L
18	GOOG	M		GOOGL	X
19	GOOGM			HLHZZ	X
20	HLI			IQDEZ	X
21	IQDF			IWM	L
22	IWM	M		JNJ	X
23	JNJA			LNG	L
24	LNG	M		MDLYZ	X
25	MDLZ			MSFSZ	X
26	MSFT			NDXOZ	X
27	NDXP			NJQZZ	X
28	NJR			NVCZZ	X
29	NVD			OIHZZ	X
30	OII			PLAXZ	X
31	PLAY			QQPZZ	X
32	QQQ			QQQ	X
33	QQA			RVLSZ	X
34	RVLT			SNAOZ	X
35	SNAP			SPXZZ	X
36	SPY			SPY	L
37	SPY	M		SPY	X
38	SPYA			SWMZZ	X
39	SWN			TN	X
40	TNA			TSLA	L
41	TSLA	M		TWTR	L
42	TWTR	M		UPRNZ	X
43	UPRO			VABZZ	X

44	VAC			WBAHZ	X
45	WBAI			WZZZZ	X
46	X			XLHZZ	X
47	XLI			XMLUZ	X
48	XMLV			ZZZZ	X