SIAC

Securities Industry Automation Corporation
11 Wall Street, New York, NY 10005

January 26, 2024

To: OPRA Multicast Data Subscribers

Subject: Revised OPRA 96-Line Capacity Projections

The OPRA Participants have updated their traffic projections based on messages per 100-millisecond (MPHM) intervals. The use of a 10-millisecond interval reflects system utilization during bursts of traffic. The bandwidth required to receive OPRA data is reflected in Gigabits.

Please note that the traffic projections are for the new 96-line network going live on February 5, 2024, and are for **one stream only**. For fault tolerance purposes, two redundant streams of data are available from SIAC. For those Multicast Data Subscribers who elect to receive both streams of data, the bandwidth requirements would be double.

The maximum output traffic rates for OPRA data services will be as follows:

Capacity Projections

Effective Date	100-Milliseconds			10-Milliseconds			Total Messages Per Day (billions)	Maximum Output Rate per Output Line MPHM (Thousands Msg / 100ms)
	Maximum Output Traffic Rates (Million Msg /100ms)	Bandwidth (Gigabits /100ms)	Peak Packets (Thousand packets / 100ms)	Maximum Output Traffic Rates (Millions Msg/10ms)	Bandwidth (Gigabits /10ms)	Peak Packets (Thousand packets / 10ms)		
2/5/2024	11.000	3.603	1446	1.244	0.404	156	202	625
4/2024	11.411	3.736	1472	1.290	0.418	157	212	625
7/2024	11.930	3.891	1483	1.349	0.438	160	222	625
10/2024	12.469	4.054	1503	1.410	0.454	163	231	625

Retransmissions

The required bandwidth should be increased by 10% to account for retransmissions.

Latency

The median latency for OPRA is under 20 microseconds. Message latency is measured beginning with the time-stamp taken as an inbound Participant message arrives at the network entrance to the OPRA environment, through processing by the system into a consolidated message for Multicast Data Subscribers, to the time-stamp taken as the outbound message arrives at the network exit from the environment. These time-stamps are taken and correlated by a process external to the data processing applications. If the external process cannot correlate an inbound message to its corresponding outbound message or measures negative latency for a message, the message is excluded from broader latency calculations such as median message latency.

Questions

Questions regarding the bandwidth requirements should be addressed to: **CTA-OPRA-Support@siac.com**. Multicast Data Subscribers can also contact the SIAC NMS Product Management Desk at 212-656-8177, Option 2. If support team members are engaged with other customers, please leave a detailed voice message of the purpose of your call, which will produce an email of your message to the support team.