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

March 22, 2024

To: OPRA Multicast Data Subscribers

Subject: Testing Opportunity: OPRA Capacity Test Reminder- **April 6, 2024**

OPRA traffic projections are 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 **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.

SIAC provides Saturday capacity testing opportunities three times a year to allow Multicast Data Subscribers to validate processing OPRA projected maximum output traffic rates.

All OPRA Multicast Data Subscribers are invited to participate in capacity testing occurring on the same dates as the SIP Failover tests as follows:

2024 OPRA Capacity Testing Schedule

- Sat 4/6/24: from approximately 12:00pm - 1:00pm ET
- Sat 7/20/24: from approximately 12:00pm - 1:00pm ET
- Sat 12/7/24: from approximately 12:00pm - 1:00pm ET

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

OPRA 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)		
4/2024	11.411	3.736	1472	1.290	0.418	157	206	625
7/2024	11.992	3.926	1547	1.356	0.439	165	210	625
10/2024	12.447	4.075	1606	1.406	0.455	171	222	625
1/2025	13.066	4.277	1685	1.477	0.479	180	235	625

Retransmissions

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

Latency

The median latency for OPRA is approximately 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.

Test Registration

Each OPRA Data Subscriber participating in the test should register at **CTA-OPRA-Support@siac.com** .

Data Subscribers who receive OPRA from connectivity service providers other than ICE Global Network (IGN) or the NMS Network must contact their connectivity service providers to coordinate testing.

Please note that if no Multicast Data Subscribers register for capacity testing, capacity testing **will not take place.*

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.