

September 22, 2023

To: OPRA Multicast Subscribers

Subject: Expansion of OPRA Data Dissemination from a 48-Line to a 96-Line Multicast Network:

Additional Capacity Test - Saturday, September 30, 2023

What's New:

As previously announced, for optimal symbol balancing and line capacity utilization, OPRA will be expanding data dissemination from a 48-line to a 96-line multicast data distribution network.

Changes Being Made:

As part of expanding data dissemination from a 48-line to a 96-line multicast data distribution network, and to help facilitate capacity upgrades to the ICE Global Network (IGN), new subnets, rendezvous points, source addresses, and multicast addresses are being introduced (including Global Trading Hours (GTH)). Note that these changes apply to customer connections via both IGN and the NMS Network in Mahwah.

The changes are being made in two phases:

- **Phase 1**: migration of the current 48-line symbol distribution schema to new network subnets, rendezvous points, source addresses, and multicast addresses -- **Complete**
- Phase 2: migration of the new symbol distribution schema over 96 lines

When it is Changing:

Activation of the new network subnets, rendezvous points, source addresses, and multicast addresses were completed on Monday, July 10, 2023. -- **Complete**

Activation of data dissemination on the <u>96-line multicast data distribution</u> network is scheduled to take place at start of day, **Monday, October 9, 2023.**

For detailed schedule information including all industry tests, please consult the OPRA 96-Line Migration FAQ's, here.

Testing Opportunities:

- Cert System Functional Testing: New symbol routing test schema
 - Began: Monday, April 3, 2023
 - Ends: Friday, October 6, 2023
- Saturday, September 30, 2023: Additional Capacity Test
 - OPRA 96-Lines: Capacity testing (10:25AM-12:35PM)
 - The test plan can be located on page 3

OPRA subnets, rendezvous points, source addresses, and multicast addresses can be found in the appendices of the Common IP Multicast Distribution specification here.

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.

Test Registration

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

Technical Inquiries

- NMS Product Management Support Email: CTA-OPRA-Support@siac.com
- NMS Production Management Support Line: 212-656-8177, Option 2 (Monday through Friday, 9:00 AM-5:00 PM ET)

OPRA Migration to new network subnets, rendezvous points, source addresses, and multicast addresses Test Date & Time: Sep 30, 2023, 10:25 AM to 12:35 PM ET (Approximate)

Hourly Test Script					
#	Time	Test Category	Action By	Test Description	Expected Results
	09:30:00 - 09:45:00 AM SIFMA BCP/DR Pre-Test #2				
	09:45:00 - 10:25:00 AM SYSTEM RESTART - OPRA to run End of Day, reboot and run Start of Day to bring up system in a clean state in the LDC following the BCP/DR Pre-Test #2 on the RDC				
Capacity Test for the 96-Line Traffic Distribution over the NEW Output Multicast Network					
1	10:25:00 AM	SOD	OPRA	OPRA on the New Output Multicast addresses for Realtime and	
				Retransmission lines on the new 96-line Traffic Distribution	
				OPRA to trigger Start-of-Day message on the new Output Multicast lines	
2	10:30:00 - 11:30:00 AM	Capacity Test	OPRA	OPRA to simulate data for Capacity Test	
				- 20M msg/sec to 11M msg/sec, each rate maintained for 1 second (total	
				10 seconds)	
				- Pattern repeated for 60 minutes	
3	11:35:00 AM - 12:35:00 PM	Capacity Test	OPRA	OPRA to simulate data for Capacity Test	
				- Initial Rate = 1M msg/100ms. Rate will be maintained for 4 minutes	
				- Rate will increase by 1M msg/100ms every 4 minutes, with highest rate	
				at 15M msg/100ms	
				- Total duration = ~ 60 Minutes	
4	12:35:00 PM			End of Test	