November 21, 2018

TO: OPRA Multicast Data Subscribers

SUBJECT: Quarterly OPRA Failover Testing to Secondary Data Center: Reminder;

Schedule Change for 2019

Failover Testing:

SIAC will be conducting failover testing with the OPRA exchanges on **Saturday, December 8th, from 9:00 am - 11:30 am ET**. All OPRA multicast Data Subscribers are invited to participate.

Change for 2019

In 2019, SIAC will be moving from four DR Failover tests per year every three months, to three DR Failover tests per year every four months.

2019 Failover Testing Schedule

- Saturday, 4/13/19
- Saturday, 8/17/19
- Saturday, 12/7/19

Failover Test Details:

The failover to the secondary data center can occur at any time during the 9:00 am - 11:30 am ET time window, to simulate an unexpected real-time event requiring a failover. Participating exchanges will continue to generate test data which will be disseminated over the production multicast lines sourced from the secondary data center.

Upon failover to the secondary data center OPRA Data Subscribers will see:

OPRA Failover Messaging Description
Category H, Type K, Reset Multicast Line Sequence Number Control messages
Category H, Type P, Disaster Recovery Data Center Activation Control messages
Zero quotes for all securities
OPRA trades and quotes after the exchanges fail over

Testing Coordination:

To coordinate testing, and to provide verbal or written confirmation of testing (as required of all Data Subscribers), please register as follows:

 E-mail your name, organization name, phone number to: <u>CQS-CTS-OPRA@siac.com</u>

Indirect Data Subscribers must contact their service provider to coordinate testing.

Documentation:

Please reference the latest OPRA Output Multicast Specifications which may be obtained at: www.opradata.com.