October 17, 2022

TO: OPRA and OPRA Global Trading Hours (GTH) Multicast Data Subscribers

SUBJECT: OPRA and GTH Failover to Secondary Data Center and MWCB Testing: 2023 Test Schedule

Failover and MWCB Testing

Three times a year SIAC conducts OPRA failover testing to the secondary data center, as well as Market-Wide Circuit Breaker (MWCB) Breach Level 1 and 2 (7% breach and 13% breach) testing with the OPRA exchanges. In addition, an annual MWCB test with Breach Levels 1, 2, and 3 (20% breach) is conducted. Below is the 2023 testing schedule. All OPRA Multicast Data Subscribers are invited to participate in these tests to validate expected processing within your systems.

The last test for this year will take place on Saturday, December 3, 2022, from 7:30 am - 11:00 am ET.

**2022 SIP Failover/MWCB Saturday Testing Schedule**
- Sat 12/3/22: SIP Failover / MWCB Level 1/2 Test #3

**2023 SIP Failover/MWCB Saturday Testing Schedule**
- Sat 4/1/23: SIP Failover/MWCB Level 1/2 Test #1
- Sat 7/22/23: SIP Failover / MWCB Level 1/2 Test #2
- Sat 9/9/23: MWCB Level 1/2/3 Test
- Sat 12/2/23: SIP Failover / MWCB Level 1/2 Test #3

Failover Test Details

The GTH failover to the secondary data center can occur at any time during the 7:55 am - 8:15am ET time window, with the OPRA failover occurring at any time during the 10:00 am - 11:00 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 and GTH Data Subscribers will see:

<table>
<thead>
<tr>
<th>OPRA and GTH Failover Messaging Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category H, Type K - Reset Block Sequence Number Control messages to ‘1’ (10x)</td>
</tr>
<tr>
<td>Category H, Type P - Disaster Recovery Data Center Activation Control messages</td>
</tr>
<tr>
<td>Zero quotes for all securities</td>
</tr>
<tr>
<td>OPRA trades and quotes after failover from participating Exchanges</td>
</tr>
</tbody>
</table>

**Test Registration**

Each OPRA and GTH Data Subscriber participating in the test should register at [CTA-OPRA-Support@siac.com](mailto:CTA-OPRA-Support@siac.com). The test plan will be provided prior to each test.

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

**Documentation**

Please reference the latest OPRA and GTH Output Multicast Specifications which may be obtained from [www.opraplan.com](http://www.opraplan.com).

**OPRA and GTH Notifications**

To automatically receive these notifications and OPRA and GTH system alerts, you are required to subscribe at: [https://www.opraplan.com/contact-us](https://www.opraplan.com/contact-us)