August 5, 2021

TO: OPRA Multicast Data Subscribers

SUBJECT: OPRA Pillar Failover Testing to Secondary Data Center: Saturday, August 21, 2021

Reminder

Failover Testing

As previously announced, SIAC will be conducting OPRA Pillar failover testing with the OPRA exchanges on Saturday, August 21, 2021, from 9:00 am - 11:00 am ET. All OPRA multicast Data Subscribers are invited to participate.

2021 SIP Failover and MWCB Test Schedule

- Sat 5/1/21: SIP Failover / MWCB Level 1/2 Test #1 - complete
- **Sat 8/21/21: SIP Failover / MWCB Level 1/2 Test #2**
- Sat 9/11/21: MWCB Level 1/2 and 3
- Sat 12/4/21: SIP Failover / MWCB Level 1/2 Test #3

Failover Test Details

The failover to the secondary data center can occur at any time during the 9:00 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.

*The test plan will be provided in a separate notice.*
Upon failover to the secondary data center OPRA Data Subscribers will see:

<table>
<thead>
<tr>
<th>OPRA Failover Messaging Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category H, Type K, Reset Multicast Line Sequence Number Control messages to 1</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 the exchanges fail over</td>
</tr>
</tbody>
</table>

Pillar OPRA to failover to DR site and publish following messages:
1) Reset Block Sequence Number (Category H Type K) for each OPRA output line to reset to sequence number 1
2) Disaster Recovery Data Center Activation (Category H Type P) message
3) Zero Quotes (Quote messages with Zero Price and Size) on behalf of all participants across all symbols

**Test Registration**

Each OPRA Data Subscriber participating in the test should register at [CTA-OPRA-Support@siac.com](mailto:CTA-OPRA-Support@siac.com).

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

**Documentation**

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