SIX Exfeed Message No. 22/2017

Subject: SIX MDDX Multi-Dimensional Data fluX (SIX MDDX) Information Update

To:
☒ Business Coordinators
☒ Technical Coordinators

Authorized by: Customer Support

Pages: 4

Date: 05.10.2017

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Important Information

- SIX MDDX Bandwidth Requirements finalized
- SIX MDDX Testing Activities During Member Test Phase
  - Performance Tests and Background Load Tests
  - Intraday Recovery Tests planned on the 12th of October
  - New SIX MDDX capture Phase 2 available on our Member Section

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Interfaces
☐ SMF
☒ SIX MDDX
☐ IMI
☐ MDI

Dear SMF Vendor

This message provides some additional information about the SMF replacement by SIX MDDX.

**SIX MDDX Bandwidth Requirements for SCAP Connection**

In the following table you will find the final SCAP bandwidth requirements:

<table>
<thead>
<tr>
<th></th>
<th>10 Mbps</th>
<th>10 Mbps</th>
<th>30 Mbps</th>
<th>30 Mbps</th>
<th>30 Mbps</th>
<th>50 Mbps</th>
<th>50 Mbps</th>
<th>50 Mbps</th>
<th>100 Mbps</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMF specific</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Post-Trade</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Level 1 (TOP)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Level 2 (CUM)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>DOB</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Your SCAP connection bandwidth will determine which services you can receive from MDDX. Depending on your needs you may want to:

- Upgrade existing connectivity or order new connectivity
- Derive CUM and TOP from DOB on your side

The above figures do not include any usage of MDI or IMI. Please contact your Local Support Center before ordering any change in connectivity.

**SIX MDDX Testing Activities During Member Test Phase**

We strongly recommend that all Market Data Vendors test their feed handlers.

- Test your applications and verify that they are in-line with the latest SIX MDDX interface specifications.
- Participate in the scheduled tests organized by SIX Swiss Exchange:
  - Performance and Background Load Tests
– SWXess Intraday Recovery Test

Performance Tests and Background Load Tests

During the SMR7 Membertest phase, SIX Swiss Exchange will hold a Performance Test on the Membertest infrastructure on the date given in the table below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (CEST)</th>
<th>Load Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat 07.10.2017</td>
<td>10:00 to 16:00</td>
<td>The detailed load pattern will be published in a separate MSC Message before the test.</td>
</tr>
</tbody>
</table>

You are invited to participate in this test to verify your market data applications under high load.

In addition, SIX Swiss Exchange will hold Background Load Tests each Tuesday and Thursday evening from 18:00 to 20:00 CEST using the following load distribution:

<table>
<thead>
<tr>
<th>Time (CEST)</th>
<th>Quote Per Second Load</th>
<th>OUCH Transactions Per Load</th>
<th>FIX Transactions Per Second Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>18:00 to 20:00</td>
<td>3000</td>
<td>1000</td>
<td>250</td>
</tr>
</tbody>
</table>

SWXess Intraday Recovery Tests

We have scheduled a recovery test on the date given in the table below. During this test, you have the possibility to verify the behaviour of your applications during a recovery.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (CEST)</th>
<th>Activity</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.10.2017</td>
<td>15:00 to End of Business</td>
<td>Intraday Recovery Test – MDDX infrastructure failure simulation</td>
<td>Description below</td>
</tr>
</tbody>
</table>

MDDX Infrastructure Failure Simulation

In this test scenario, an MDDX Infrastructure Failure is simulated by shutting down Box 2 accessible via SCAP DCB which will remain down for the rest of the day.

Box 1 = 146.109.63.252
Box 2 = 146.109.47.251
## Schedule

<table>
<thead>
<tr>
<th>Hardware Box</th>
<th>Time</th>
<th>Test Case</th>
<th>Status SIX MDDX</th>
<th>Expected Action by Participant Application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T-30min</td>
<td>A confirmation that the failure simulation takes place is published on the Membertest System Status page and distributed via MSC Alert (priority 3-Low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>T</td>
<td>Box 2 shutdown</td>
<td>MDDX connections on Secondary Servers on Box 2 accessible via SCAP DCB – are disconnected</td>
<td>Participants affected need to check they are able to continue receiving MDDX feed via SCAP DCA. If you refer to chapter 9.4 from MDDX Specifications, all sources should go to SourceAvailability “D” (Down) and then, they should come back to SourceAvailability “U”(Up) after a possible transition via SourceAvailability “R”(Recovery) depending on the source.</td>
</tr>
<tr>
<td></td>
<td>Approx. T+5 min</td>
<td>A confirmation that Box 2 down is published on the Membertest System Status page and distributed via MSC Alert (priority 3-Low)</td>
<td>MDDX connections on Primary Servers on Box 1 accessible via SCAP DCA – remain connected</td>
<td></td>
</tr>
</tbody>
</table>
New SIX MDDX Capture Phase 2 Available

SIX MDDX Capture Phase 2 files are now available for download in binary and text format:

https://secure.six-swiss-exchange.com/member_section/it/downloads.html

SIX Exfeed Ltd
Customer Support

For business related questions, e.g. data-content, - packages and entitlements:
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