

IT –Verification of failover functionality in the Genium INET production system (35/15)

Introduction

On Saturday October 10th, 2015, NASDAQ Nordic will perform verification tests of the site failover functionality in the Genium INET production environment. The system will be available for participants for login and standard reference data and business queries. No other type of business functionality will be enabled.

Participants are recommended to take advantage of this opportunity to test their connectivity and ability to failover to the NASDAQ OMX Site B. Please note that only participants that have connectivity to site B can participate in this test. The failover verification test will be available for the participants in the following markets in the NASDAQ OMX Nordic Genium INET system:

- NASDAQ OMX Stockholm AB derivatives markets (including derivatives on Swedish, Danish, Finnish and Norwegian shares and indices)
- NASDAQ OMX Stockholm AB Fixed Income markets
- NASDAQ OMX Copenhagen A/S Fixed Income markets
- NASDAQ OMX Helsinki Ltd. Fixed Income markets
- NASDAQ OMX Oslo ASA Commodity markets

Time plan

10:00 Genium INET system available for login in the normal configuration.

11:00 Failover initiated from Site A to Site B.

13:00 Failover completed and member login enabled to Site B.

14:00 Test completed, Genium INET system shutdown.

Execution

The Genium INET system will be available for login at 10:00 CEST, in normal configuration with Site A being the primary site. Connectivity will also be as normal, allowing OMnet and ITCH connectivity via both Site A and Site B, and FIX via Site A. The markets will be in closed state, with login allowed and business queries enabled. Markets will remain closed throughout the test.

At 11:00 CEST a controlled failover from Site A to Site B will be performed, simulating a complete loss of Genium INET on Site A. Accessibility to Genium INET on Site A will hence be disabled. Please note that network connectivity still remains active to Site A data center to prevent impact for customers connecting to other NASDAQ services located at Site A.

The failover activities are estimated to be completed at 13:00 CEST, at which time logon will be available on Site B only. The exact time will be communicated via IT Information



message during the test. Please note that you are required to have connectivity to Site B for this step.

At 14:00 CEST the Genium INET system will be shut down and configuration restored to normal weekend operation.

Communication plan

IT Information messages will be sent at the following times:

- 10:00 To confirm the availability of the system and commencement of the test.
- 11:00 To inform that the failover is initiated.
- 13:00 To confirm that Site B is ready.
- 14:00 To conclude the test.

Participants are advised to ensure subscription to the IT Information – Derivatives and IT Information – Fixed Income or IT Information - Commodities messages on the following site: <u>http://www.nasdaqomxnordic.com/News/marketnotices/Subscribe</u>

NASDAQ OMX Front-ends

• Clearing Workstation 2

Available for login. No transactions are available. All query- type transactions are available, although replies will reflect that October 10^{th} is not a business day.

• Clearing Workstation 1

Not available by default. CW1 requires server registry changes in order to enable login on a non-business day. Members interested in performing this test must contact Tech Relations for full description and detailed instructions. No transactions are available. All query- type transactions are available, although replies will reflect that October 10th is not a business day.

CMS web

Available for login.

• Trading Workstation

Available for login. No transactions are available. All query- type transactions are available, although replies will reflect that October 10th is not a business day.

Protocol specific details

• OMnet:

Login enabled.

Messages supported: BI9

No transactions are available.

Queries supported: All query- type transactions are available, although replies will reflect that October 10th is not a business day.

• FIX:

Login enabled.

Messages supported: Administrative messages.

• ITCH:

Login enabled. Re-request available. Messages supported: T, S, R, L, M, O, A (GTD orders)



For further information on Connectivity & Access and Protocol Specifications, please see:

http://www.nasdaqomx.com/transactions/technicalinformation/geniuminet/

Support

Support will be available via the normal support channel: Genium INET Tech Support +46 8 405 6750, technicalsupport@nasdaq.com

Registration and Reporting

Participants shall register for the test by completing and submitting the Registration and Report document to nordicbcptest@nasdaq.com This will ensure proper contact information is collected that will be used during the test.

After the test has been completed, we kindly ask that participants submit a report using the same Registration and Report document to nordicbcptest@nasdaq.com The Registration and Report document can be found attached to this IT-Notice.

For further information, please contact:

Anders Bergström

Technical Relations NASDAQ Direct: +46 8 405 7364 Email: anders.bergstrom@nasdaq.com