

Notice to Participating Organizations and Members

July 21, 2011

2011-042

Enterprise Expansion Implementation Update

As part of our continuing efforts to provide customers with the most advanced trading technology and performance, TMX Group is pleased to announce details on the migration of symbols to the new TSX Quantum® Trading Engine Partition Two, as part of our Enterprise Expansion Initiative first announced in PO Notice # 2011-003 published January 18, 2011.

What does this mean to you?

- Higher throughput and capacity - Enterprise Expansion Partition Two (EEP2) is designed to accommodate 40,000 order messages per second
- Increase in outbound messaging bandwidth
- Splitting of Toronto Stock Exchange (TSX) Data Feeds and Reports

1. EEP2 and Splitting of Data Feeds

The introduction of EEP2 results in the splitting of all TSX data feeds, which are TL1, TL2, TBF, TRF, TQL1, and TQL2, into partitioned feeds, where each feed will support data for those TSX symbols that are unique to each trading engine partition. As a result, feed subscribers will be required to read multiple instances of the feed. Please note that the actual content and format within the partitioned feeds will remain the same.

On **Monday August 8, 2011** EEP2 is expected to be introduced to the Gateway Testing Environment (GTE) to facilitate external testing and validation of the second partition, and to allow data recipients of TBF, TRF, TQL1 and TQL2 to validate their feed readers as it pertains to the split feeds. In addition, we are currently providing test data for EEP2 data feeds on test stocks in our production environment to facilitate any modifications and testing of external systems to support multiple feeds. Please contact Market Operations at 416-947-4705 or vendor_services@tmx.com for assistance in co-ordinating any required connectivity, feed, or order entry testing for EEP2.

The migration of production symbols onto EEP2 is expected to commence on **Monday October 24, 2011**. All external data feed recipients must be able to support a secondary instance of their feeds by this date. Symbols are expected to be migrated to Partition 2 in a phased approach. Further details on the symbol migration schedule will be communicated in a subsequent notice once finalized.

2. Splitting of TSX Daily Diary Reports

The TSX Daily Diary Reports, which are distributed to Participating Organizations each evening via email or FTP, will also be split. As a result, a second set of diary reports will be distributed containing information for those TSX symbols that have been migrated to the second partition. Participating Organizations are advised to make any necessary changes in order to receive the split reports via daily emails and/or via their secured FTP site by **October 24, 2011**.

Please refer to PO Notice #2011-031 at <http://www.tmx.com/en/trading/participating/index.html> for details related to the Daily Diary Report changes.

3. Recommended Bandwidth Requirements

With EEP2 designed to accommodate increased throughput of up to 40,000 messages per second, the number of trade and quote messages is expected to increase as participants adapt to the increase in performance capabilities. Recommended bandwidth requirements to accommodate the messaging increase for all market data feeds were published earlier in the year and are outlined at the end of this notice.

For more information or questions related to EEP2 please contact your TMX Account Manager.

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About TMX Group (TSX-X)

TMX Group's key subsidiaries operate cash and derivative markets for multiple asset classes including equities, fixed income and energy. Toronto Stock Exchange, TSX Venture Exchange, Montreal Exchange, Canadian Derivatives Clearing Corporation, Natural Gas Exchange, Boston Options Exchange (BOX), Shorcan, Shorcan Energy, Equicom and other TMX Group companies provide listing markets, trading markets, clearing facilities, data products and other services to the global financial community. TMX Group is headquartered in Toronto and operates offices across Canada (Montreal, Calgary and Vancouver), in key U.S. markets (Houston, Boston and Chicago) as well as in London. For more information about TMX Group, visit our website at www.tmx.com.

A French version of this notice is available on our web site at www.tmx.com. Une version française de cet avis est disponible sur notre site Web à l'adresse www.tmx.com.

DATA FEED BANDWIDTH RECOMMENDATIONS

| SERVICE | BANDWIDTH (recommended) |
|---------|-------------------------|
| TL2 | 200Mbps |
| CL2 | 20Mbps |
| TL1 | 40Mbps |
| CL1 | 10Mbps |
| TBF | 300Mbps |
| CBF | 30Mbps |

| SERVICE BINARY FEEDS | BANDWIDTH (recommended) |
|-------------------------|-------------------------|
| TQL2 | 70Mbps |
| VQL2 | 8Mbps |
| TQL1 | 16Mbps |
| VQL1 | 5Mbps |

Notes:

- 1 Gbps circuit for Level Two data to allow for continued growth is recommended.
- All recommendations are based on one second peaks. We do recognize sub-second microbursts occur. The network connection the data feed recipient owns and manages will need to cope with microbursts. The degree of packet loss outside of our network will depend heavily on the devices each recipient elects to use.
- The numbers presented are recommendations based on potential growth.
- Due to the nature of the multicast protocol, data feed recipients are expected to packet arbitrate across two streams. For example, the recommended 200Mbps for TL2 would need to be doubled to provide adequate bandwidth to accommodate this practice.