

Notice to Participating Organizations, Members and Subscribers

March 21, 2014

2014-009

PRODUCT UPDATE – TSX ON TMX QUANTUM XA™ REVISED IMPLEMENTATION PLAN

At the request of our Participating Organizations and their respective application providers, we have elected to revise the implementation steps to allow for easier session management through the staged production roll-out. There are no changes to the schedule or any other details related to the migration.

We have also included the production destination IPs and PORT details to assist with any preliminary client firewall work.

Staged Production Roll-Out (revised)

Symbols trading on TSX will be migrated onto TMX Quantum XA over three phases commencing Monday, June 2nd, 2014. The following symbols/symbol groups will be migrated to TMX Quantum XA on the following dates:

- Monday, June 2nd - all symbols beginning with the Letters J and Y
- Monday, June 9th - all remaining symbols beginning with the Letters E through L and T through Z
- Monday, June 16th - all remaining symbols beginning with the letters A through D and M through S
- Monday, June 23rd - contingency date

All other details as previously noted will remain the same. We will also be making test stocks available effective the week of April 28th for the sole purpose of validating order entry on the new destination IP and PORTs. Prior to sending any test orders, you will need to contact Market Operations at 416-947-4705. Test stocks will need to be uninhibited.

Connectivity Details

New order entry session bundles are required to access TSX on TMX Quantum XA. Parties connecting directly to the TSX trading engine are required to establish new order entry sessions and route orders to a specific Destination IP and PORT by symbol:

Node	Symbol Range	Session Type	Direct IP	Port
1	A to D	FIX OE	142.201.227.154	12111
		STAMP OE	142.201.227.154	12112
		FIX DC	142.201.227.169	12191
		STAMP DC	142.201.227.169	12192



Node	Symbol Range	Session Type	Direct IP	Port
2	E to L	FIX OE	142.201.227.156	12211
		STAMP OE	142.201.227.156	12212
		FIX DC	142.201.227.169	12291
		STAMP DC	142.201.227.169	12292
3	M to S	FIX OE	142.201.227.164	12511
		STAMP OE	142.201.227.164	12512
		FIX DC	142.201.227.170	12591
		STAMP DC	142.201.227.170	12592
4	T to Z	FIX OE	142.201.227.166	12611
		STAMP OE	142.201.227.166	12612
		FIX DC	142.201.227.170	12691
		STAMP DC	142.201.227.170	12692

During the migration, orders for symbols that have yet to migrate are to be routed via existing connections.

- Customers using STAMP order entry protocol will use the STAMP specification version 7.10 to route orders to TSX on TMX Quantum XA. Orders for symbols that have yet to migrate are to be routed via the existing sessions and STAMP specification version 6.42.
- Customers using FIX for order entry must send orders for symbols that have migrated to TMX Quantum XA using FIX 4.3 specification version 4.10. Orders for symbols that have yet to migrate are to be routed via the existing sessions and FIX 4.2 specification version 3.32.

As with TMX Select on TMX Quantum XA, users are required to upgrade to STAMP 7.10 and FIX 4.3 order entry protocols, as per specifications published in June 2012.

At this time, access to TSX Venture Exchange and Alpha Exchange will continue through existing order entry connections.

Gateway Testing Environment (GTE) and Certification

- The test environment has been available since February 18, 2014
- In order to secure new order entry sessions in GTE, please contact TMX Market Operations at vendor_services@tmx.com
- For those who have already completed application certification in GTE as part of the TMX Select on Quantum XA migration, nothing further is required, however we strongly recommend clients test TSX on TMX Quantum XA in the GTE environment
- Clients who did not complete certification as part of the TMX Select migration are required to complete application certification prior to accessing TSX on TMX Quantum XA.

Production Connectivity Validation (Technical Launch)

- Production Order Entry sessions will be made available commencing the week of April 28th, 2014. This will allow for validation of client internal firewall changes and session authentication in a controlled fashion.

- Test Stocks will be made available for the sole purpose of validating order entry. Performance testing will not be allowed.

Handling of Open Orders

Based on customer feedback, we will be purging all open orders as part of the migration. The orders will be removed as part of the batch process on Friday evenings preceding each migration dates. In order to accommodate re-entering of the GTC and GTD orders, the production environment will be available on the respective Saturdays.

Note that orders cancelled as part of the Friday's End of Day batch (including all expired orders) will be reflected on the Saturday's Reconciliation feed. Monday's Order Status/Order Book will be reflective of Saturday's order entry session.

We will provide a complete schedule indicating the weekend pre-open times in a subsequent notice.

Market Data Feeds

There will be no functional changes to the existing market data feeds. However, additional stream IDs will be included on the binary feeds (TQL1 and TQL2). Further details will be provided in a follow-up notice.

Customers Impacted

Anyone with a direct connection to TSX with a certified order entry application will be impacted by the TMX Quantum XA upgrade. This includes, but is not limited to:

- Service Bureau vendors
- Participating Organizations, Members, or Subscribers with in-house proprietary systems
- Software providers
- DMA customers supporting direct connections

Customers that access TSX through a service bureau or third party access vendor are encouraged to reach out to their vendor contacts to discuss what, if any, changes may be required.

Documentation

Specifications applicable to TMX Quantum XA are available through the TMX Equity Markets Documentation Portal at <https://www.tcbdata.com/tmxequitymarkets/login.cfm>

If you have further questions or need additional information, please contact TMX Market Operations at (416) 947-4705, or our Account Management Team.

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About TMX Group (TSX-X)

TMX Group's key subsidiaries operate cash and derivative markets and clearinghouses for multiple asset classes including equities, fixed income and energy. Toronto Stock Exchange, TSX Venture Exchange, TMX Select, Alpha Group, The Canadian Depository for Securities, Montreal Exchange, Canadian Derivatives Clearing Corporation, Natural Gas Exchange, BOX Options Exchange, Shorcan, Shorcan Energy Brokers, Equicom and other TMX Group companies provide listing markets, trading markets, clearing facilities, depository services, 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 (New York, Houston, Boston and Chicago) as well as in London, Beijing and Sydney. For more information about TMX Group, visit our website at www.tmx.com. Follow TMX Group on Twitter at <http://twitter.com/tmxgroup>.

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