

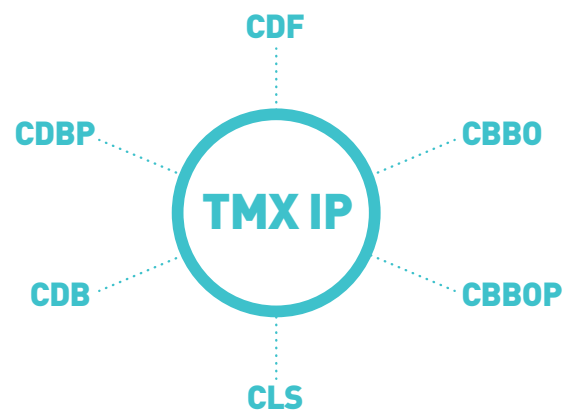
Equity Information Processor

TMX Information Processor

The TMX Information Processor (TMX IP) provides a central source of consolidated Canadian equity market data that meets standards approved by regulators. The TMX IP products include the Consolidated Data Feed (CDF™), Canadian Best Bid and Offer™ (CBBO®), Canadian Best Bid and Offer™ for Protected only markets (CBBOP™), Consolidated Last Sale (CLS™), Consolidated Depth of Book (CDB™) and the Consolidated Depth of Book for Protected only markets (CDBP™). These products use world-class, third-party technology and provide market participants with low-latency access to consolidated real-time market data from multiple Canadian equity marketplaces, which is delivered to clients through existing TMX telecommunication links. The TMX IP feeds use existing TMX routers and are offered via point-to-point connections from TMX's data centres, the SFTI Network and on extranets which currently carry TMX market data feeds.

Benefits of the TMX IP Products

- Cost effective alternative to direct feeds and aggregation of Canadian exchanges and ATSS market content for participants with regulatory best-price obligations.
- Clients can leverage existing connectivity infrastructure to TMX and existing TSX TL2 feed handler infrastructure.
- Access to familiar support infrastructure, including TMX Vendor Services.
- TMX infrastructure investment in dual data centres and data consolidation platforms.



TMX IP Products

Consolidated Data Feed (CDF)

The CDF provides access to order and trade data from each contributing marketplace (trade data only for dark pools) normalized to the TSX TL2 data format. Each marketplace's normalized feed is available as a permissionable multicast feed, allowing clients to access pre- and post-trade data from one or more (or all) Canadian marketplaces. The CDF provides the full depth of book for each lit marketplace.

Canadian Best Bid and Offer for Protected only markets (CBBOP)

The CBBOP feed provides real-time access to the consolidated Canadian best bid and offer for Canadian equity securities that trade on all protected Canadian Lit marketplaces. The CBBOP broadcasts the marketplace identifiers and aggregate volume at the highest bid price and the lowest offer price for each security during regular trading hours of the participating marketplaces.

Canadian Best Bid and Offer (CBBO)

The CBBO feed provides real-time access to the consolidated Canadian best bid and offer for Canadian equity securities. The CBBO broadcasts the marketplace identifiers and aggregate volume at the highest bid price and the lowest offer price for each security during regular trading hours of the participating marketplaces.

Consolidated Last Sale (CLS)

The CLS is a real-time trade feed which disseminates trade reports from all contributing marketplaces including the dark pools. Each CLS trade message will include the following fields: attributed marketplace, timestamp from the source, volume, price, symbol and special terms and regulatory markers.

Consolidated Depth of Book for Protected only markets (CDBP)

The CDBP is a single consolidated view of the order book from the contributing protected lit marketplaces. The CDBP will provide, by symbol, the aggregate orders at each price for each marketplace.

Consolidated Depth of Book (CDB)

The CDB is a single consolidated view of the order book from the contributing lit marketplaces. The CDB will provide, by symbol, the aggregate orders at each price for each marketplace.

Participating Marketplaces in TMX IP Services — Effective April 1st, 2018

MARKETPLACES	CDF	CBBO	CBBOP	CLS	CDB	CDBP
TSX Alpha Exchange ¹	•	•		•	•	
TSX	•	•	•	•	•	•
TSXV	•	•	•	•	•	•
NASDAQ CXC	•	•	•	•	•	•
NASDAQ CX2	•	•	•	•	•	•
NASDAQ CXD ²	•			•		
Omega	•	•	•	•	•	•
Lynx ¹	•	•		•	•	
Canadian Securities Exchange	•	•	•	•	•	•
NEO Exchange NEO-L ¹	•	•		•	•	
NEO Exchange NEO-N ¹	•	•		•	•	
NEO Exchange NEO-D ²	•			•		
Instinet Canada Cross ²	•			•		
Triact MatchNow ²	•			•		
LiquidNet ²	•			•		

1. Denotes an unprotected marketplace. Note, unprotected marketplaces are excluded from the CBBOP and CDBP service, except for their own listings.

2. Denotes a Dark Marketplace. Note, Dark MarketPlaces are excluded from the CBBO, CBBOP, CDB and CDBP services.

Costs associated with the TMX IP Products

The TMX IP is a pass-through model, meaning that in addition to the TMX IP distribution fee, the market data fees (for level 1 and level 2, as applicable) and the data policies of the contributing marketplaces are passed through to the client.

There is a monthly TMX IP distribution charge for each TMX IP product as follows:

CODE	Name
CDF	\$200 ¹
CBBO	\$500 ²
CBBOP	\$500 ²
CLS	\$500 ²
CDB	\$750 ²
CDBP	\$750 ²

There are no TMX IP product subscriber fees.

1. Per marketplace feed at a maximum of \$1000 monthly per source.

2. Per instance. For CBBO, CBBOP, CLS, CDB and CDBP, an instance is defined as either Service A (for TSX listed securities) or Service B (for TSX Venture, NEO Exchange, and CSE listed securities).

For more information:

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