



Connecting to Montréal Exchange



TMX Group

Equities
Toronto Stock Exchange
TSX Venture Exchange
TMX Select
Equicom

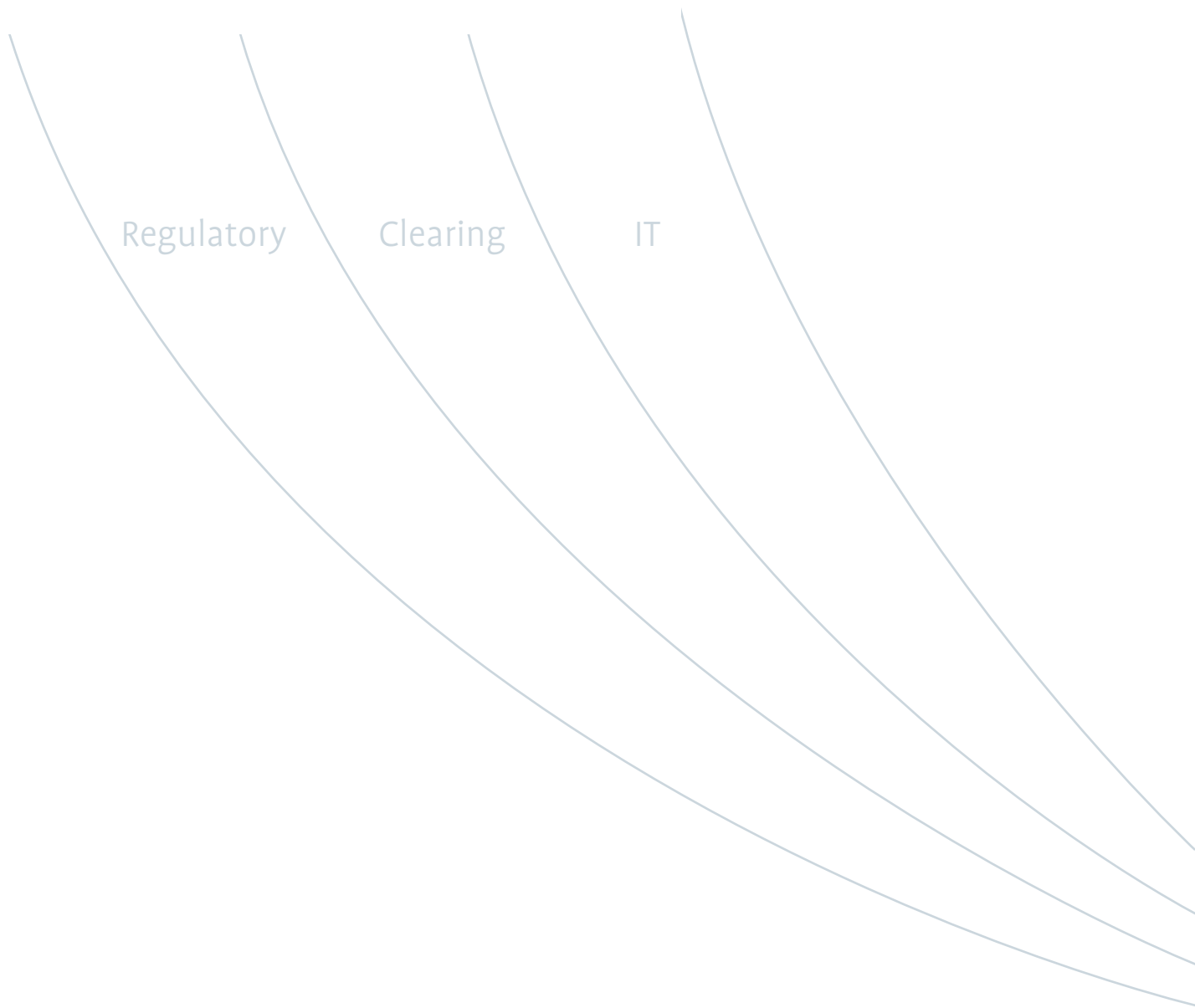
Derivatives
Montréal Exchange
CDCC
Montréal Climate Exchange

Fixed Income
Shorcan

Energy
NGX

Data
TMX Datalinx
TMX Atrium
PC Bond

MX Access





The Montréal Exchange

The Montréal Exchange (MX), part of TMX Group, has leadership in three areas of finance: financial derivatives markets, clearing services and IT business solutions.

In 1975, MX changed the Canadian financial environment through the introduction of equity options. Years later, we established a major futures market. Today, MX is the majority shareholder in the Boston Options Exchange and, through our SOLA software products, MX operates EDX London, Oslo Børs and IDEM (the Italian Derivatives Exchange Market).

Financial derivatives market

MX operates two different markets, a futures market and an options market. Our futures and options products cover major asset classes, including: interest rates with a time horizon of one day to 30 years, equities, FX, and Canadian stock indices.

MX's trading market model comprises all the features that are highly valuable to users: direct access, transparency, fairness and speed. This model ensures execution of client orders on a "first-in, first-out" basis and at the best price.

Clearing services

The Canadian Derivatives Clearing Corporation (CDCC) acts as the central clearing counterparty for exchange-traded derivatives instruments listed on the Montréal Exchange. CDCC also clear over-the-counter financial instruments through its *Converge* clearing service.

CDCC requires each clearing member to maintain margin deposits to cover the risk associated with each participant's position. The risk assessment is based on a set of well-defined criteria established by CDCC. Margins are collected daily or more frequently during periods of high market volatility.

As a central clearing counterparty, CDCC ensures the integrity and stability of the Canadian derivatives market by assuming the related obligations of a defaulting clearing member towards other clearing members. To ensure its ability to fulfill its obligation, CDCC maintains a rigorous risk management process.

CDCC is a wholly-owned subsidiary of the Montréal Exchange.

Accessing MX

Approved participants have direct access to MX markets and trading environment. Approved participants benefit from a significant cost savings in execution fees, and can route client orders and install terminals in client offices.

Regulatory Overview

1. Qualifying firms

Domestic approved participant

- Incorporations under applicable Canadian provincial or federal laws
- Members of the Investment Industry Regulatory Organization of Canada (IIROC)
- Members of the Canadian Derivatives Clearing Corporation or enter into a clearing agreement with one of its members

Foreign approved participant – United States*

- Future commission merchants
- Proprietary trading firms

* U.S. participants can only access futures and options on futures contracts approved by the Commodity Futures Trading Commission.

Foreign approved participant – United Kingdom

- Persons authorized by the Financial Services Authority to carry out activities for a broker/dealer in securities
- Persons authorized by the Financial Services Authority to carry out activities for a proprietary trading firm
- Exempt persons

Foreign approved participant – France

- Entities approved by the Autorité de contrôle prudentiel.

Application forms are available at http://reg.m-x.ca/en/approval/approved_participant.

2. Market access

Any employee of a domestic or foreign approved participant wanting to access SOLA electronic trading system must be approved as an Authorized Person. Specific courses, training certificate and IIROC forms must be submitted.

Application forms are available at <http://reg.m-x.ca/en/approval/sam>.

3. Client electronic access

Approved participants can authorize clients to electronically route orders to MX. Certain conditions apply; see Rule 6, Section 6365-6399 Electronic Trading of Derivatives Instruments Traded on the Bourse, available at http://www.m-x.ca/f_regles_en/o6_en.pdf.



Clearing Overview

1. Domestic approved participant

A firm wishing to become an approved participant has two alternatives to clear their transactions:

- become a clearing member of CDCC; or
- enter into a clearing agreement with a CDCC clearing member and CDCC

2. Foreign approved participant

As only Canadian corporations may be clearing members of CDCC, a foreign approved participant must enter into a clearing agreement with a CDCC clearing member and CDCC.

The list of clearing members is available at http://www.cdcc.ca/membres_liste_en.php.

For more information on CDCC membership standards, or to apply for membership, contact Member Services at memberservices@cdcc.ca.

IT Overview

SOLA, the trading platform developed by MX, is a highly robust and low-latency trading system for multiple financial products such as standardized options and futures. With its exceptional performance and capacity, SOLA ranks among the world's best trading platforms.

1. Software

Order entry

MX supports three order entry protocols:

- **SAIL** - SOLA Access Information Language is the native protocol for SOLA, offering functionalities required by both order flow providers and market makers.
- **FIX Protocol** version 4.2
- **STAMP**

A wide variety of Independent Software Vendors (ISVs) have written to MX open SOLA platform providing approved participants and their clients many options for front-end systems.

List of certified ISVs is available at <http://www.m-x.ca/connect_fournisseurs_en.php>.

Approved participants may also choose to develop their proprietary software to one of the above mentioned protocols.

Our market model is built on a price/time priority (FIFO) algorithm.

Market data

The High Speed Vendor Feed (HSVF) broadcasts real-time trading and statistical information. The feed is comprised of trades, quotes, market depth (first limit or five best limits), strategies, bulletins, summaries and other statistics. It offers various feeds from which subscribing market participants can choose.

Implied prices are also disseminated through HSVF for any feed handler that has developed to this feature.

Post trade services

• Trade Reporting Gateway

The Trade Reporting Gateway (ATR) provides live confirmation of all transactions executed on the trading system. Market participants' back-offices can subscribe to this service to feed their risk position management applications in real time.

• Trade Management System

The Trade Management System (TMS) application provides real-time trade reporting and post-trade allocation functionalities for approved participants or their clearing members. This application links the trading platform to CDCC. Thus, TMS facilitates clearing, back office and risk management operations. The TMS application installation package is a self-extracting file.

• Clearing API

The Clearing Gateway provides the same functionalities as the TMS application through an electronic API. Market participants can develop their own software to communicate with MX Clearing Access Services Gateway for post-trade allocations.

• End-of-Day Trade Reports

The End-of-Day Trade Report is a .csv file accessible through a secure FTP server that contains, among other fields, the counterparty information of each trade. This service is available for approved participants only (domestic and foreign).

Risk management services

- **Drop Copy**

Participants subscribing to the Drop Copy feed receive order and quote (optional) acknowledgments and trade notifications messages. Participants are able to receive all confirmation messages from a single feed, irrespective of the multiple trading applications that may be used by the firm. Participants can thus recreate their order book and their trades in quasi real time. Participants also have the option of sending a cancellation message (see Global Cancel functionality below) via the Drop Copy connection.

- **Global Cancel**

Participants are able to send global order or quote cancellation messages. Global Cancel will be available on a separate connection type within each order entry channel. With one single message, participants can instruct the system to cancel their firm's orders or quotes, according to the granularity level that they have determined. As mentioned above this function is available on the Drop Copy service.

- **While Connected for day orders**

Day orders with While Connected functionality are automatically withdrawn from the central order book in the event that the participant's server is disconnected from MX. Upon reconnection, participants receive the standard cancellation message. These cancelled orders are not recoverable and have to be resubmitted.

2. Telecommunications

Domestic or foreign approved participants can connect to the MX co-location site or at one of the Points of Presence (POP).

To obtain access to the production environment the following connections are available:

- Direct line (responsibility of the approved participant or foreign approved participant)
- Network provider (BT Radianz, Frontline Technologies, Reliance Globalcom, SFTI, SAVVIS, TMX Atrium and Transaction Network Services)
- ISV network (i.e. CQG, Frontline Technologies, GL NET, and TTNET)

3. MX POP locations

- Toronto
- New York
- Chicago
- London

For further information on becoming a domestic or foreign approved participant and connecting to the MX:

Telephone: **514 871-3581**

Toll-free within Canada and U.S.A: **1-866-871-7878**

Toll-free from Great Britain and France: **00.800.36.15.35.35**, extension **878**

E-mail: **mxconnect@m-x.ca**

MX Derivatives on SOLA

1. Trading sessions

MX futures and options contracts trade in three sessions:

- Early trading session
- Regular trading session
- Extended trading session

Not all contracts are available in all sessions. Consult the contract specifications for each product for its trading schedule.

2. Product trading hours and phases

Each group of instruments has its own trading schedule. The trading day is marked by different stages, though some products do not have all of these stages.

Trading hours and phases are available at <http://www.m-x.ca/f_publications_en/tradinghoursphases_en.pdf>

3. Orders and duration

Clients can trade an array of order types and durations on the SOLA trading platform. Order types and duration qualifiers vary according to product and each client's trading application.

Price type

- Limit order: Order for which a limit price is specified.
- Market order: Order for execution at the best price available in the market for the total quantity available from any contract bid (offer). Any residual volume, left after part of a market order has been executed, is automatically converted to a limit order at the price at which it was just executed.
- Stop-limit order (only supported on the S&P/TSX 60™ Index Mini (SXM) and Standard (SXF) Futures contracts): Order that is meant to limit a participant's loss or to lock in a gain in the market. A participant specifies that if the price of the contract drops (rises) and trades at or below (above) a specified price (the "trigger" price), a limit order to sell (buy) will be created and sent to the market. Note that stop orders that do not specify a triggering limit price will not be accepted by the system. In addition, a participant wishing to change the trigger price of a stop order must cancel the original order and send in a new one.
- Market-on-open order: Order for execution at the market opening at the CTO (Calculated Theoretical Opening) price. If a market-on-open order is only partially filled, any residual quantity is automatically converted to a limit order at the price at which the original order was executed. Market-on-open orders have priority over limit orders.
- Iceberg order (hidden quantity): Using this facility provides the flexibility to display sequential pre-determined portions of a single large order. The minimum required quantity to be displayed for futures contracts is 25 contracts (50 contracts for the CGB futures). This facility allows for an efficient execution of large size orders without disrupting market's supply and demand.

Duration type

- Day order: Order that must be filled on the day it was sent or it will be cancelled at the close of trading. Unless specified otherwise, an order is always a day order.
- Good 'til date (GTD): Order that will remain valid in the book until a specified date, after which it will be cancelled.
- Good 'til cancelled (GTC): Order that will remain valid in the book until it is cancelled.
- Fill and kill order: Order that will be executed at the specified price. If it is not filled completely, the remaining quantity will be cancelled.

Frequently Asked Questions

What is an Authorized Person? How do you become one?

Domestic and foreign approved participants' employees must be approved as Authorized Persons by the Regulatory Division before being authorized to trade on SOLA.

Employees of domestic approved participants wishing to be approved as Authorized Persons must submit their application by using the National Registration Database (NRD) "Registration Information for an Individual" form (Form 33-109F4) and the "Certification – Self Regulatory Organization" form prescribed by the IIROC. Since MX does not have access to the NRD, this form must be filed in paper form. Furthermore, they must submit the training certificate proving that they have registered and have duly paid the mandatory online course on MX products.

For more information about becoming an Authorized Person, contact the Regulatory Division by phone at 514 871-2424, extension 461 or by email at reg@m-x.ca.

How can I obtain the technical specifications?

To obtain the technical specifications, customers must sign a one-way Non-Disclosure Agreement (NDA). Once the NDA signed, the Market Access Manager will provide the required specifications and other documentation designed to assist customer's development, connectivity and testing.

Does MX allow direct market access for clients of an approved participant or foreign approved participant?

DMA access is not allowed. MX only recognizes an approved participant (domestic or foreign) for direct connections. Requests for trader IDs, firm IDs or alternate connections must come from the approved participant. The approved participant must have a risk filtering mechanism in place before orders arrive at any connection point. The approved participant is responsible for this as a condition of their approved status. MX trading rules require the approved participant to have order routing agreements in place with any client. These do not have to be submitted but must be in force when order routing for clients is permitted.

Can someone connect via VPN?

We permit VPN access to the MX General Test Environment.

LAN-to-LAN VPN connections:

Typically the VPN connections are setup in tunnel mode between the client's router/firewall and MX VPN routers. Traffic between the client's internal hosts and MX hosts will then pass over the established VPN tunnel.

What options are available to connect to the production environment?

Direct connection:

A direct connection can be made to MX co-location facility and to one or more of the MX Points of Presence (POPs). Physical connectivity to the production network is provided by a 10/100/1000mb Ethernet connection. Customers are responsible for supplying the appropriate telecommunications lines and router at the POP.

Third party network providers:

MX connectivity can be obtained via the BT Radianz, Frontline Technologies, Reliance Globalcom, SFTI-SIAC, SAVVIS, TMX Atrium and Transaction Network Services (TNS) networks.

What are the costs of connecting?

Certification fee for proprietary software	\$10,000 (one time fee)
API support fee	\$500 per month for proprietary software only
Co-location	\$8,000 per month and per cabinet
Co-location installation (initial non recurring fee)	\$5,000
Hosting fees via Points of Presence (POPs)	\$750 per month
Hosting installation set-up (initial non recurring fee)	\$1,500
Trade Management System	\$522 per month
Drop Copy service	\$500 per month
Domestic or foreign approved participant annual assessment	\$5,000 per year
New application as Authorized Person	\$125
Annual fee per Authorized Person	\$125
Course fee per Authorized person	\$250
Designated representative (domestic & foreign)	\$250

Fees are subject to changes.

The official list of fees is available at <http://www.m-x.ca/f_publications_en/bourse_list_fees_2011.pdf>.

Does the MX offer any incentive programs?

The MX offers an incentive program for proprietary traders, the Liquidity Provider Rebate Program (LPRP). We also offer an additional incentive for proprietary traders who are registering for the LPRP for the first time.

MX Liquidity Provider Rebate Program

http://www.m-x.ca/f_publications_en/liquidity_provider_form_en.pdf

MX New Trader Program

http://www.m-x.ca/f_publications_en/new_trader_form_en.pdf

Rebate table

http://www.m-x.ca/f_publications_en/liquidity_provider_rebate_table_en.pdf

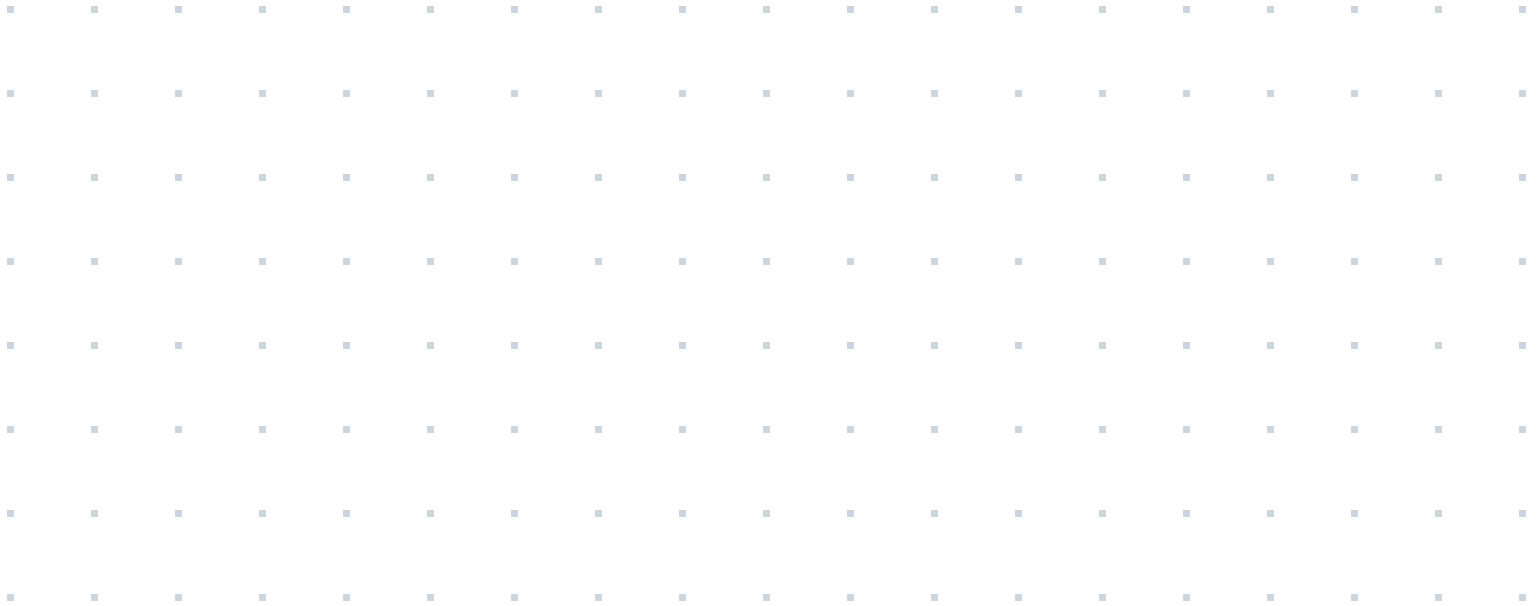
Does the MX have a disaster recovery plan?

Yes, MX has a DRP. All firms connecting through one of our POPs will have access to our DRP. Firms connected directly to Montréal will need to have a backup connection to another POP in order to access the DRP.





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