

Readers should be aware that only the original Thai text has legal force and that this English translation is strictly for reference. Thailand Futures Exchange Public Company Limited cannot undertake any responsibility for its accuracy nor be held liable for any loss or damages arising from or related to its use.

Summary on the Connection of the Computer Systems Used in Trading On TFEX Trading System

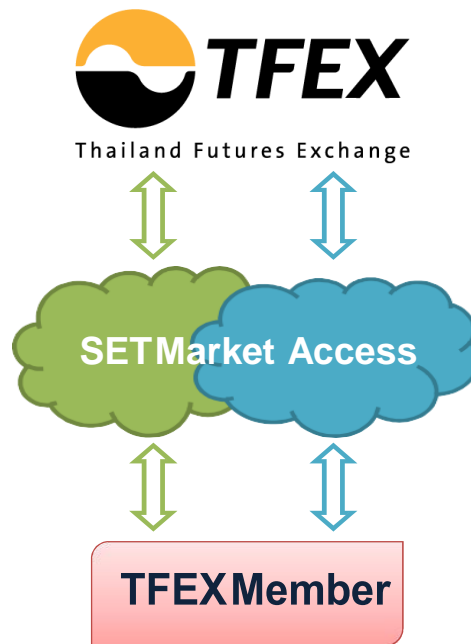
TFEX Trading System

The trading in TFEX shall be made via the electronic trading system. Only members of TFEX and authorized persons are allowed to connect their computer systems to the TFEX trading system.

In derivatives trading, the related persons expect promptness, effectiveness, and reliability. Hence, the trading system, which is a key factor for the operation of TFEX, shall apply innovative technology which is fast and supports connections to various types of platforms and software so as to enable the related persons to operate and use the risk management technology in their operation effectively.

The TFEX trading system operates under state of the art IT architecture. Apart from high-performance and flexible trading platform, the trading system development focus on resilience and robustness. The front-end gateway allows concurrent and multiple connections from market participants. In case issues occur in any gateway, the participants can switch to another gateway immediately. For backend system, tradable instrument workloads are allocated to separate and independent set of Matching Engine (ME) partitions. Each Matching Engine partition has been designed to support double failure. A single failure will be handled automatically by seamlessly switching from primary ME to standby ME within a main site. In case of double failure, TFEX will failover that particular Matching Engine partition to ME at Disaster Recovery (DR) site.

Connection to the Trading System of TFEX



Presently, TFEX requires its members to connect their respective computer system used in trading, namely the order management system, to the TFEX trading system via SET Managed Network (SETNET 3) and SET Co-location.

In submitting orders to the TFEX trading system, the member shall connect and send the order through OUCH or FIX Protocol, an Open API technology which is generally used and meet international standards. A member who wishes to connect to the TFEX trading system shall procure and maintain the network system for the connection to the trading system (the details of which are per the connection of the computer system used in trading to the TFEX trading system) and make preparations with respect to standard management and the security of his/her order management system (the details of which are as per the security standards for the systems connected to the system of TFEX).

Member’s Order Management System Connected to TFEX

The member may choose to use an appropriate order management system, whether it is the system developed by the member itself, other independent software vendors (ISV), or service providers (SP). However any member may connect such order management system to TFEX, only when the system, which is developed by such member, ISV, or SP, passes the conformance test of TFEX, and such member, prior to the use of the trading program, passes the test and obtains permission from TFEX (per the details in the regulations, procedures, practice guidelines of TFEX, in relation to the connection of the member’s computer system used in trading to the TFEX trading system).

In addition to the connection for sending the member's order, the member may also allow the investors to make a system connection in order to send their orders directly to the member's system, namely Direct Market Access (DMA). In this regard, the member shall obtain permission prior to allowing the investors to send their orders through said channel (per the details in the regulations, procedures and guidelines of TFEX in relation to the connection of the members' computer system used in trading to the TFEX trading system).

Conformance Test

TFEX announces the list of Independent Software Vendors (ISV) and Service Providers (SP) whose Computer system has passed the Conformance Test prescribed by TFEX via <https://www.set.or.th/en/services/information/isv>.

A member who wishes to use the order management system of any of the foregoing ISVs or SPs may apply for permission for connection, without requesting that such ISV or SP perform another conformance test. However, the member must perform the system test prior to the application of such system. In this respect, the member may inquire with the ISV or SP in regard to the software versions which have passed the TFEX's conformance test. However, a member who wishes to use the order management system of the other ISVs or SPs, which have not passed the conformance test of the TFEX, may request that such ISV or SP submit a certificate of their qualifications with respect to financial status, achievements relating to the development and provision of system solutions, and information on their personnel, and notify TFEX of their intention to develop and perform the TFEX conformance test (Email: ISV_Access_Support@set.or.th), so that TFEX can consider and designate the date and time for the test from time to time. When such ISV or SP passes the conformance test, the member shall perform the system test prior to the use of such system.

Application for Permission to Use the Trading Program and the Member Test

When the order management system passes the conformance test of TFEX, the member who wishes to connect to the system shall apply for permission to use the trading program for trading through the trading channels, such as authorized traders, the Internet, Direct Market Access (DMA), or Program Trading, by filing an application for permission to connect the member's system to the TFEX trading system, and the certificate of the trading program certified by ISV or SP (if the order management system developed by ISV or SP is used) with TFEX (per the details in the Guidelines for Application for Permission to Connect Computer Systems Used in Trading to the TFEX Trading System). The member must also test such trading program and submit the test results to TFEX concurrently, with additional information or documents as may be required by TFEX for its consideration.

TFEX will inform related persons of the system test, for instance, the members, ISV, or SP, in advance via CONNEX. The related persons can receive such news via email or by downloading it from the SET Community Portal system. TFEX will inform the member of the test script and the details relevant to the test via Member Digital Form system so that the related persons can download such information from the SET Community Portal. For new ISVs or

SPs who wish to perform the test, TFEX may use the existing test schedule or set a new schedule on a case-by-case basis as it deems appropriate. For any enquiries please contact the Trade Operations Group.

Consideration for Permission and Use of the Order Management System

After the member who wishes to connect to the system has applied for permission and tested the trading program as mentioned above, TFEX shall inform the member of the results of its consideration via Member Digital Form system within 10 business days from the date of receipt of the complete and correct information. The member is required to confirm the commencement date of the use of such system with TFEX within the specified period. If the member fails to use the system within 3 months from the date of the receipt of the test results, TFEX may consider cancelling such test result as it deems appropriate.

Member's Readiness with Respect to the Order Management System

Where the member obtains permission to connect its order management system to the TFEX trading system, the member shall always be ready to use such system, both in terms of the management and security of the system, both of which shall meet the standards prescribed by TFEX. In this respect, the member is required to prepare the operation documents in accordance with such standards, and shall be ready for inspection immediately upon request by TFEX, and shall maintain and repair the network system so that it is in good working condition at all times.

Additionally, the member is required to prepare a backup plan and standby system for the member's order management system which is connected to the trading system. Such standby system shall be available for use at any time. The member shall perform a test on the backup plan and standby system at least once a year, and participate in the test of its order management system and standby system with TFEX, as specified. The member shall also procure sufficient personnel to supervise its order management system which is connected to the trading system, and to coordinate with TFEX during and outside of business hours.

Change in the Member's Order Management System

Where the member wishes to change or amend the order management system, the member may contact and submit their inquiries and information to TFEX for preliminary consideration as to whether the member is required to apply for permission prior to the use of such changed or amended order management system. If permission is required, the member may study the details on the procedures from the Guidelines for Application for Permission to Connect Computer Systems Used in Trading to the TFEX Trading System.

Inquiries

- Inquiries on the application for system connection permission, please contact:
Derivatives Trading Operation Unit, Derivatives Trading Operation Department

-UNOFFICIAL TRANSLATION-

E-mail: DerivativesTradingDepartment@set.or.th

- Inquiries on network connection, please contact: SET Contact Center,
Telephone: 0-2009-9000 E-mail: SETContactCenter@set.or.th
 - Inquiries on technical connection, please contact:
Derivatives Trading System Unit, Trading System Department
E-mail: TradingSystemsDepartment@set.or.th
-