THE PROCEDURE FOR CERTIFICATION OF EXTERNAL SYSTEMS CONNECTED TO THE FUNCTIONALITY

OF THE TRADING CONNECTION SUBSYSTEM

OF ITSX PLATFORM SOFTWARE

Terms and Definitions.

Application for Connection to the ITS Test Environment means Application for Connection to the Test Site and/or Application for Connection to the Training Trading posted at https://itsx.kz to be filled in by the Developer in order to obtain test logins, client codes and test Trading and Clearing Accounts for the External System Certification within the Test Environment.

Developer Application means a document containing a list of questions for the Developer about the External System to be certified, in the form set out in Annex 2 to the Procedure.

Exchange means International Trading System Limited (ITS).

Exchange Information means information on the course and/or results of organised trading in Instruments: both information on the course and/or results of organised trading on the Exchange and information on the course and/or results of organised trading conducted by other exchanges received by the Technical Centre from the Exchange.

Broker means a person who is a Trading Member or a Clearing Member and who has been granted the right to use the Platform with the functionality of the Trading Connection Subsystem.

External System / external software means the software and hardware complex of the Broker (or the Broker's client subject to the approval of the Broker) used for interaction with the Trading Connection Subsystem in order to transfer the Orders from the said software and hardware complex to the Trading Connection Subsystem and subsequent information exchange between the said software and hardware complex and the Trading Connection Subsystem as provided for in the Support Terms and Conditions and the Technical Documentation.

Order means an order to execute a Transaction on the Exchange.

Instrument means a financial instrument, commodity admitted to trading on the Exchange and disclosed on the Exchange's website at https://itsx.kz, taking into account specific execution (settlement) conditions, trading modes and other parameters determining the terms of execution and/or performance of the Transactions.

Clearing Organisation means a clearing organisation or other entity that performs the functions of clearing the obligations under the trades executed on the Exchange.

Platform means the ITSX Platform computer programme.

Trading Connection Subsystem means the functionality of the Platform designed for trading and OTC operations, for the broadcasting of Exchange Information.

Procedure means this Procedure for Certification of External Systems Connected to the Functionality of the Platform.

Operation Rules mean the Rules of Trading in Securities on the Exchange and/or the Clearing Organization's Clearing Rules for Securities Market, as well as other documents of the Exchange, the Clearing Organisation and the Technical Centre defining the procedure for interaction with the Platform, the procedure for submission of Orders, execution of Transactions, clearing and settlement of Transactions executed.

Developer means an individual or a legal entity, including a Broker, providing the External System to undergo the Certification procedure.

Certification means the procedure conducted by the Technical Centre to verify that the External System functionality meets the requirements set forth in the Procedure in order to prevent potential damage to the software and hardware of the Technical Centre, the Exchange, the Clearing Organisation, the Brokers and/or their clients.

Transaction means an agreement in respect of an Instrument entered into or concluded on trading on the Exchange on the basis of an Order.

Technical Documentation means the documentation available at https://itsx.kz that describes how to connect to and interact with the Trading Connection Subsystem, the description of gateways and their flows and other technical information necessary for the correct interaction of the certified External System with the Trading Connection Subsystem.

Test Environment means a test and training (play-based) functionality of the Platform which is specified by the Developer in the Developer Application when going through the Certification procedure.

Technical Centre means ITS Tech Limited (ITSTCH) Private Company.

Support Terms and Conditions means Terms and Conditions for Information Technology Support Services of the Technical Centre posted at https://itsx.kz.

Clearing Member means a person who has entered into a clearing service agreement with a Clearing Organisation.

Trading Member means a person who has entered into an agreement with the Exchange for organised securities trading.

Terms not expressly defined in the Procedure have the meaning determined in the Support Terms and Conditions, Technical Documentation and Operation Rules. Logins, Client Codes, Trading and Clearing Accounts are provided to Developers for use in the Test Environment for Certification purposes and do not provide for their use for the purposes of entering into Transactions in accordance with the Operation Rules.

1.**General Provisions**

1.1. The Certification is a mandatory procedure for connecting the External System to the Trading Connection Subsystem. Connection to the Trading Connection Subsystem of External Systems that have not been certified (the "uncertified External Systems") is not permitted.

1.2. External Systems having a connection to the Trading Connection Subsystem as of the date of entry into force of the Procedure, whose Developers (their representatives) have duly submitted the Developer Application to the Technical Centre and received from the Technical Centre a notification of successful certification or External Systems included in the List of the Certified External Systems with an access to the Trading Connection Subsystem of the Platform, disclosed on https://itsx.kz, are deemed to have been certified (the "certified External Systems").

1.3. The Certification is free of charge.

1.4. The Certification procedure is provided in Annex 1 to the Procedure.

1.5. In order to undergo the Certification procedure, the Developer completes a soft copy of the Developer Application and e-mails it to the Technical Centre at support@itsx.kz, specifying the parameters of the External System, including its purpose.

The Developer, subject to clause 1.7.5 and Annex 5 of this Procedure, may specify one of the following purposes for the External System:

- "Broker System" is specified if the External System to be certified is intended to provide broker services/services for trading in financial instruments, including displaying Exchange Information, executing operations and calculating risks. The broker systems are designed to provide access to trading for a wide range of clients and/or to obtain the Exchange Information for the internal purposes of the Trading Member/Clearing Member;

- "Automated Trading System" is specified if the External System to be certified is a set of software tools designed to conduct automated (algorithmic) operations according to user-defined algorithms (trading bot, algorithmic trading).

Such External Systems include but are not limited to arbitrage systems, high frequency trading systems (HFT systems). Automated Trading Systems are designed to connect clients of Trading Members/Clearing Members individually to the Trading Connection Subsystem.

1.5.1. During the Certification, the External System is classified according to the functionality specified in the Developer Application.

1.6. The Certification procedure establishes testing requirements for the External Systems to verify that the functionality of the External System interacts correctly with the Trading Connection Subsystem. In order to be certified, the External System should comply with the requirements specified in clause 2 of the Procedure and accurately run the test scenarios specified in Annexes 3, 4 according to the functionality specified in the Developer Application.

1.7. In the cases listed in sub-clause 1.7.1. to 1.7.4. of this clause, the External System is recertified.

1.7.1. If the Exchange introduces a new functionality of the Platform and/or the Test Environment, the Technical Centre is entitled to demand Recertification of the External System to the extent corresponding to the scope of the new functionality of the Platform and/or the Test Environment, of

which the Technical Centre indicates in the notification sent to the Trading Members/Clearing Members. If the Technical Centre fails to provide the notification, the Recertification is not required.

1.7.2. In the opinion of the Technical Centre, the functionality of the External System may cause damage to the software and hardware of the Technical Centre, the Exchange, the Clearing Organisation, the Brokers and/or their clients.

1.7.3. The Technical Centre has recorded the use by the Broker (or their client) of External System functionality not specified in the Developer Application.

1.7.4. Where the functionality of the External System has undergone significant changes in terms of interaction with the Trading Connection Subsystem, unless otherwise agreed by the Technical Centre.

1.7.5. During the operation of the External System, the Technical Centre may, at any time and at its discretion, verify that the External System's current purpose is the same as that specified in its classification in accordance with the criteria set out in Annex 5. If it is not the same, the Technical Centre is entitled to:

1.7.5.1. change the purpose of the External System by giving at least 5 working days' prior notification to the Developer; or

1.7.5.2. demand the Recertification.

1.8. Where the Technical Centre finds an External System to be uncertified as a result of the Certification procedure, such External System may not be connected to the Trading Connection Subsystem. Where the External System has been connected to the Trading Connection Subsystem, the disconnection of such External System from the Trading Connection Subsystem is in accordance with the procedure set out in the Support Terms and Conditions.

1.9. During the Certification, the Technical Centre assesses the correct operation of the External System only in relation to its interaction with the Trading Connection Subsystem.

1.10. The Certification is deemed successful and the External System may be connected to the Trading Connection Subsystem if the External System successfully passes the following inspections:

- verification by the Technical Centre of the connection scheme of the External System to the Trading Connection Subsystem for compliance with the requirements of the Technical Centre referred to in clause 2 of the Procedure;

- verification by the Technical Centre of the operation of the External System while running the test scenarios set out in Annexes 3 and/or 4 to the Procedure.

If the External System fails to pass one of these inspections, that External System may not be connected to the Trading Connection Subsystem.

1.11. Within 5 (five) working days after completion of the External System testing procedure, the Technical Centre notifies the Developer, using the e-mail address specified by the Developer in the Developer Application, of the results of the Certification (subject to the particulars specified in clause 1.9 of the Procedure):

- of the successful completion of the Certification; or

- of the refusal of the Certification, specifying the deficiencies of the External System which led to the refusal.

1.12. Subject to the appropriate marking on the Developer Application, the External System that has been successfully certified is added to the list of certified External Systems, indicating the name, Developer and purpose of the External System. The list of certified External Systems is disclosed by the Technical Centre at https://itsx.kz.

1.13. The Developer warrants that it has complied with the AIFC Regulations and Rules regarding obtaining the consent of the individuals whose personal data are set out in the Application for Connection to the Test Environment and the Developer Application for the processing of their personal data by the Technical Centre.

2. **Requirements for the Functionality of External Systems**

2.1. Connection and data exchange between the External System and the Trading Connection Subsystem is in accordance with the Technical Documentation.

2.2. The External System should be able to maintain a log file recording, if necessary, all interactions with the Trading Connection Subsystem and their results. The names of the fields of tables, log-file entries and External System operations should allow their unambiguous interpretation in order to establish consistency between them and the terms/definitions used in the Technical Documentation and in the Operation Rules.

2.3. The manner and features of the External System's transactional interaction with the Trading Connection Subsystem should be in accordance with the Operation Rules.

2.4. The functionality of the External System should allow for correct reconnection to the Trading Connection Subsystem.

Annex 1

The Certification Procedure

1. The Certification is held in the Test Environment.

2. The Certification involves the following steps:

2.1. To receive the Application for Connection to the ITS Test Environment, the Developer contacts email address support@itsx.kz, fills it and sends it by reply letter. The Developer uses the appropriate Application for Connection to the Test Environment to specify the number and types of logins required to connect the External System to the Test or Training Site of the Test Environment. If the External System with the Broker System purpose is provided for the Certification, the Developer should use an Application for Connection to the Test Environment to specify the broker login and at least two client codes on whose behalf the testing of the External System's trading activity will be carried out. If the External System with the Automated Trading System purpose is provided for the Certification, the Developer should use an Application for Connection to the Test Environment to specify the client code.

The logins and Trading and Clearing Accounts required to be specified in the Developer Application are provided to the Developer in a notification sent by the Technical Centre using the e-mail address specified by the Developer in the Application for Connection to the Test Environment, in response to the Developer providing the Application for Connection to the Test Environment.

If the required number of Test Environment logins have been previously received by the Developer, the Develop does not fill in an Application for Connection to the Test Environment.

If the Developer needs additional Test Environment logins, the Developer may submit to the Technical Centre an Application for Connection to the Test Environment, indicating the additional logins.

No later than three working days from the date of receipt of a correctly completed Application for Connection to the Test Environment from the Developer at support@itsx.kz, the Technical Centre sends the Test Environment logins to the Developer using the e-mail address specified by the Developer in the Application for Connection to the Test Environment.

2.2. After receiving the logins for connecting to the Test Environment, the Developer completes a soft copy of the Developer Application with the logins received and e-mails it at support @itsx.kz. A Developer Application is posted at https://itsx.kz (Annex 2 to this Procedure).

Along with the Developer Application, the Developer is entitled to send to the Technical Centre a description of the External System, including its functionality, technical specifications and intended uses.

2.3. After receiving the Developer Application, the Technical Centre reviews the Application. If the Developer Application is completed correctly and to the extent sufficient to decide whether the External System is eligible for the Certification, the Technical Centre agrees with the Developer on the date, time and duration of the External System testing within the Test Environment for the Certification.

If the documents are not completed correctly or if there is insufficient information about the External System to make a decision on its eligibility for the Certification, the Technical Centre sends a response to the Developer to the e-mail address provided by the Developer in the Developer Application stating why it is not eligible for the Certification. The Developer Application can only be resubmitted for the Certification once the Developer has eliminated the faults found by the Technical Centre.

2.4. On the date and time agreed, the Developer commences execution of the test requirements set out in Annexes 3 and/or 4 to the Procedure, depending on the purpose of the External System stated in the Developer Application.

2.5. At the time agreed or upon receipt by the Developer at the e-mail address provided by the Developer in the Developer Application, the Technical Centre disconnects the External System from the Test Environment upon completion of the test procedure.

2.6. Within the period agreed upon with the Technical Centre, after the External System has been disconnected from the Test Environment, a log file of the External System recorded during testing is e-mailed by the Developer at support@itsx.kz and analysed by the Technical Centre to ensure compliance with the test requirements set out in Annexes 3 and/or 4 to the Procedure, subject to the particulars set out in clause 2 of the Procedure.

2.7. Within 5 (five) working days after completion of the External System testing procedure, the Technical Centre notifies the Developer, using the e-mail address specified by the Developer in the Developer Application, of the results of the Certification (subject to the particulars specified in clause 1.9 of the Procedure):

- of the successful completion of the Certification (a soft copy of the letter is sent to the official named in the Developer Application).

or

- of the refusal of the Certification, specifying the deficiencies of the External System which led to the refusal.

2.8. If successfully certified, and with the Developer's consent, the External System information is added to the list of certified External Systems at https://itsx.kz.

Annex 2

Developer Application for External System Certification

" " _____ 20__

1. Name of the Developer that is a legal entity and the full name of the contact person or the full name of the Developer that is an individual

_____

_____

2. Contact details (e-mail address, phone number):

_____

3. Name of the Trading Member or Clearing Member who plans to use the Developer's External System to connect to the Trading Connection Subsystem:

_____

4. Name of the External System:

_____

_____

5. Description of the functionality of the External System (description of the procedure for receiving data and/or sending transactions):

_____

_____

_____

_____

_____

_____

6. Apps with a description of the functionality of the External System (names of apps, if any):

_____

_____

_____

_____

_____

_____

7. Purpose of obtaining the Exchange Information and the procedure for its use (solving internal analytical tasks, using back-office systems to calculate specific parameters, transmitting data to own trading system; dissemination of the Exchange Information, including publication on the website and in the media, etc.):

_____

_____

_____

_____

_____

8. Site of the Test Environment within which Certification will be carried out (mark as appropriate):

☐

Test

☐

Training (play-based) trading

9. Specify the data about the test participants for the selected site:

9.1. Trading Member code _____;

9.2. Login(s) to trade gateways _____;

9.3. Trading and Clearing Accounts (TCAs)_____;

9.4. Client Short Codes_____

_____

_____;

9.5. Login(s) to other used gateways (login is the name of the gateway).

_____

_____

_____

_____

10. Specify the purpose of the certified External System (mark as appropriate):

☐

Broker system;

☐

Automated trading system;

11. Describe the Automated Trading System (only for Automated

Trading Systems)

☐

HFT (High Frequency) automatic trading system (trading bot)

☐

Arbitrage Trading System

☐

Platform for clients to write algorithmic systems

☐

Intraday Trading System

☐

Platform for trust management / autotracking

12. Does the External System use drop copy (mark as appropriate):

☐

Yes

☐

No

12. Does the External System use a risk gateway (mark as appropriate):

☐

No

If yes, then specify the flows that the External System works with:

☐

Trades flow of clearing transactions and transfers;

☐

Pos.PositionUpdate flow of clearing positions;

☐

Funds.FundsUpdate flow of funds status;

RiskRates marginal rate flow;

RiskParams risk parameter flow;

Participants flow of directories relating to trading members;

Instruments instrument flow.

14. Can the External System submit requests for the withdrawal of multiple orders (mark as appropriate):

No

If so, specify how:

Withdrawal of orders submitted by the login on whose behalf the withdrawal request was sent;

Withdrawal of all orders for the specified instrument submitted by the login who sent the withdrawal request;

Withdrawal of all orders for the specified instrument and trading and clearing account;

Withdrawal of all requests for the specified instrument and client code.

15. Can the External System restore missed messages after disconnecting the connection and then resuming the session (mark as appropriate):

Yes

No

16. Upon successful certification, the External System is added to the list of certified External Systems at https://itsx.kz.

☐ Yes

☐ No

17. Position, surname, first name, patronymic (in full) of the Developer's representative (the data will be indicated in the notification of the results of the Certification):_____

18. Desired date of the External System Certification procedure: _____

I provide an External System (name/version) for the Certification. I have read and agree with the Procedure for Certification of External Systems Connected to the Functionality of the Trading Connection Subsystem software of the Platform.

_____

(Surname, first name, patronymic signature, date.)

Annex 3

Test Requirements for Evaluating the Operation of an External System Using Connection to Transactional Gateways of the Trading Connection Subsystem

The test requirements include two levels:

1. Session level.

The following tests are checked at session level to ensure that the following tests have been carried out correctly:

1.1. Session initialisation.

1.2. Submission of timed and other session messages, as well as the frequency of these messages (no more than 30 per second).

1.3. Reconnection.

1.4. End of the session.

2. Application level.

The Developer runs an active trading session using all available client codes through the External System during a period of time agreed upon in advance with the Technical Centre staff, correctly working out the following test requirements:

2.1. Order submission.

2.2. Order withdrawal.

2.3. Order withdrawal based on auto_cancel when resetting the session.

2.4. Multiple order withdrawal (according to the functionality of the External System specified in the Developer Application).

2.5. Recovery of missed messages after disconnection and subsequent reconnection of the session (according to the functionality of the External System specified in the Developer Application).

2.6. Obtaining information via a drop copy gateway (according to the functionality of the External System specified in the Developer Application).

During the tests, the Technical Centre checks that the External System does not re-submit multiple previously rejected invalid messages in normal and abnormal situations (login and/or client code blocking).

Annex 4

Test Requirements for Evaluating the Operation of an External System Using

Connection to the Risk Management Gateway of the Trading Connection Subsystem

The test requirements include two levels:

1. Session level.

The following tests are checked at session level to ensure that the following tests have been carried out correctly:

1.1. Session initialisation.

1.2. Submission of timed and other session messages, as well as the frequency of these messages (no more than 30 messages per second).

1.3. Reconnection.

1.4. Requesting a subscription and unsubscribing.

1.5. TopicReport (TopicReject) processing.

1.6. End of the session.

2. Application level.

The Developer correctly requests, receives and processes the following flows within the time period agreed in advance with the Technical Centre staff, according to the functionality of the External System specified in the Developer Application:

2.1. LimitRequest request to change the limit.

2.2. Trades flow of clearing transactions and transfers.

2.3. Pos.PositionUpdate flow of clearing positions.

2.4. Funds.FundsUpdate flow of funds status.

2.5. RiskRates marginal rate flow.

2.6. RiskParams risk parameter flow.

2.7. Participants flow of directories relating to trading members;

2.8. Instruments instrument flow.

Interaction with the Test Environment should be recorded in the log file of the External System.

The External System should not send a new request until all messages on the previous request have been received.

Annex 5

Criteria for Compliance of the Current Purpose of the External System Qualified as a Broker System with Its Purpose Assigned at the Time of the Certification.

Criteria indicating that the External System qualified as a Broker System may not be compatible with its purpose assigned at the time of the Certification:

1. Within 5 Trading Days 50% or more of the total volume of Sale and Purchase Agreements concluded in the Main Trading Mode and RFQ Trading Mode concluded with the indication of one login is USD 5,000,000 or more, and the said volume is formed by executing Orders, the number of which exceeds 249, placed on behalf of or for the benefit of clients who are 10% or less of the active clients or in case the number of active customers is 10 or less.

For the purpose of this clause, an active client means a client on whose behalf or for whose benefit at least one Sale and Purchase Agreement has been concluded within a specified period of time (5 Trading Days) in the Main Trading Mode or RFQ Trading Mode.

2. Within 1 minute, 100 or more Orders are executed (including part of them) placed with the same client code, and it occurs repeatedly during the trading day.

2. Within 1 minute, over 10,000 unique Orders are placed with the same client code, and it occurs repeatedly during the trading day.