Procedure for cancelling working orders automatically with the Cancel on Disconnect functionality activated (hereinafter "the Procedure")

The Moscow Exchange Derivatives Market

Contents

1. Glossary

- **Trading system, TS -** a set of hardware, software, databases and telecommunications and other equipment enabling the support, storage, processing and disclosure of information necessary to execute Derivatives Trades.

- **Cancel on Disconnect (CoD) –** a trading system functionality on the Derivatives Market that provides automatic order cancellation for anonymous "Good-till-Canceled" (GTC) orders when the transactional inactivity timeout limit is reached, or a trading participant has disconnected from the trading system, or a Trading Participant has lost connection to the trading system for any reason including network or hardware outage (or any outage resulted in trading halt, or other conditions as specified in this Procedure.

- **HEARTBEATINTERVAL -** time interval during which client-side application should notify the Trading System about its presence at least once by way of

  - sending any transaction, or

  - a special "CodHeartbeat" transaction when using the API CGate or the standard Heartbeat (0) message in FIX/TWIME protocol.

  In the current implementation HEARTBEATINTERVAL is set to 10 sec in the API CGate. HEARTBEATINTERVAL is specified by FIX client. HEARTBEATINTERVAL is specified by TWIME client, the interval value must be within 10 - 60 seconds range inclusive.

- **Inactivity timeout limit -** time interval after which client application that does not send any transactions is considered as inactive. In the current implementation

inactivity timeout is defined as 2*HEATBEATINTERVAL=20 sec in the API CGATE. It is a range from 2*HEATBEATINTERVAL to 3*HEATBEATINTERVAL in the FIX protocol. It is a range from HEATBEATINTERVAL up to 2*HEATBEATINTERVAL in the TWIME protocol.

- **Client-side application non-operability** — a technical failure in client-side application operation that halts further trading during a certain period of time, including any outage, when no trading termination or restriction/suspension/termination of admission to trading for a Trading Participant has been recorded. For the purpose of this Procedure a client-side application non-operability event should be recorded as described in clause 2.1. herein.

Terms not specifically determined herein shall have the meaning defined in the Moscow Exchange Derivatives Trading Rules, other internal documents of the Moscow Exchange (hereinafter "the Exchange"), as well as MB-Technologies IT support service terms and conditions (hereinafter "the IT support service conditions").

2. General description

2.1. This Procedure describes technical features for cancelling active orders when the Cancel on Disconnect facility is activated. Upon default to confirm the client-side application operability, an active order on the Derivatives Market may be automatically cancelled when one of the following events occur:

2.1.1. When the inactivity timeout limit for the Trading Participant's Login has been reached, or,

2.1.2. When the Trading Participanthas disconnected from the trading system, or

2.1.3. When the Trading Participant has lost connection to the trading system for any reason including a client-side application outage, data network failure, or a failure in operation of technical facilities used by the Trading Participant to access the trading system.

2.1.4. When the evening trading session on the Derivatives Market has ended

2.2. The "Cancel On Disconnect" service is provided only for anonymous GTC orders.

2.3. To activate the "Cancel On Disconnect" service the Trading Participant should submit an application to the MOEX Client Center as provided for in clause 8.1. of the IT support service conditions.

2.4. If a user does not perform any activity (order placement, modification, withdrawal etc), a client-side application should simulate by submitting to the trading system

- the "CodHeartbeat" transaction (when using the API CGate), or
- the HeartBeat message (when using the FIX-protocol) at least once in the HEARTBEATINTERVAL, but nor more frequently than once per second, or

- the HeartBeat message (when using the TWIME-protocol) at least once in the HEARTBEATINTERVAL, but nor more frequently than three times per second.

2.5. In the events that give a reason to activate the "Cancel On Disconnect" service as provided for in clause 2.1. herein, the orders are cancelled using the administrator's login.

3. Changes in bridge interface

The "CodHeartbeat" transaction has been added when using the API CGate

This transaction is not accounted in transaction fee calculation.

4. Enforcement of trading system access controls

4.1. When the client-side application is connected with the use of API CGate:

4.1.1. If the "Cancel On Disconnect" service has been activated to get connected with the use of API CGate, the trading system track transaction activity. Every registered by the trading system shall be treated as activity, whether successful or not.

4.1.2. When the client-side application does not send any transaction or at least one "CodHeartbeat" within the set inactivity timeout, the trading system automatically cancels active orders placed by the Trading Participant using the given Login as described in clause 2.2. herein in accordance with the Trading Rules.

4.1.3. When the connection to the trading system has lost for any reason including a client-side application outage, network failure, or a failure in operation of other technical facilities used by the Trading Participant to access the trading system that resulted in reaching inactivity timeout limit by the Login, the trading system automatically cancels active orders placed by the Trading Participant using the given Login as described in clause 2.2. herein.

4.2. When the client-side application is connected with the use of the FIX protocol.

4.2.1. When the "Cancel On Disconnect" service is active for the FIX protocol user, the trading system monitors logoff events and transactional inactivity as described by the FIX protocol.

4.2.2. After detecting a logoff event for the Login, the trading system automatically cancels active orders placed by the Trading Participant using the given Login as described in clause 2.2. herein.

4.2.3. After detecting that the Login has been inactive, the trading system automatically cancels active orders placed by the Trading Participant using the given Login as described in clause 2.2. herein.

4.3. When the client-side application is connected with the use of the TWIME protocol.

> **4.3.1.** When the "Cancel On Disconnect" service is active for the TWIME protocol user, the trading system monitors logoff events and transactional inactivity as described by the TWIME protocol.

> **4.3.2.** After detecting a logoff event for the Login, the trading system automatically cancels active orders placed by the Trading Participant using the given Login as described in clause 2.2. herein.

> **4.3.3.** After detecting that the Login has been inactive, the trading system automatically cancels active orders placed by the Trading Participant using the given Login as described in clause 2.2. herein.

4.4. When the client-side application is practically unable to operate bur continues to send transactions (API CGate is used) or messages (FIX/TWIME protocol is used), the application operability is acknowledged confirmed and the system does not automatically cancel orders placed by the given Login.

4.5. The trading system automatically cancels active orders placed by the Logins with enabled "Cancel On Disconnect" function as described in clause 2.2 herein after the evening trading session has ended.

4.6. When the connection to the trading system is lost for any reason including client-side application outage, data network failure, or a failure in operation of other technical facilities used by the Trading Participant to access the trading system, the trading system automatically cancels active orders placed by the Logins with enabled "Cancel On Disconnect" function as described in clause 2.2 herein after the evening trading session has ended.

5. Client-side application requirements

In the client-side application using the API CGate the Trading Participant should enable calling the "CodHeartBeat" transaction when the client application sends no transactions. The unconditional call is available for this transaction at least once in HEARTBEATINTERVAL (currently 10 seconds), but not more often than once per second.

6. Notes on implementation

6.1. A 0x400000 value is recorded (following the bulk delete) in the field "status" for orders canceled through the "Cancel On Disconnect"; a 0x100000000 value is recorded in the field "sxtatus".

6.2. When the user is connected via the FIX protocol, for each order cancelled by the CoD mechanism the trading system sends the Execution Report tagged with ExecType = Canceled, OrdStatus = Canceled, ExecRestatementReason (additional tag) = 100, that may be received upon reconnection with the FIX session recovered.

6.3. When the user is connected via the TWIME protocol, for each order cancelled by the CoD mechanism the trading system sends one message.

7. Conditions for cancelling the orders placed on behalf of users (Logins) having activated the "Cancel On Disconnect" service.

- When the trading system has not received any transactions from the Login after the inactivity timeout.

- Client-side CGate has lost connection with the router. Active orders will be cancelled after the inactivity timeout.

- The router has lost connection with the access server. All active orders will be cancelled after the inactivity timeout

- The gateway has lost connection to the trading system unable to operate properly. Orders will be cancels after detecting an error.

- FIX identifier had lost connection to the FIX server or unable to operate. The system cancels orders as soon as it detects the loss of connection.

- FIX server has lost connection to the trading system or unable to operate due to an error. The system cancels orders from all Trading Participants having failed to connect to another FIX server after the inactivity timeout limit.

- The FIX identifier has been disconnected upon reaching the FIX heartbeats timeout limit (defined at FIX logon).

- TWIME client has been disconnected due to heartbeats timeout (specified in the message 'Establish') or TWIME client loses its TCP-connection.

- The session was closed by TWIME client via command "Terminate'. Orders will be cancelled on disconnect.