

Client direct sponsored market access to FX market

1 Glossary

Trading member (Member) – companies admitted to trading at MOEX.

Member's client (Client) – company or person registered at the Derivatives market as the trading member's client where trading member enters orders per client's instruction.

Sponsored access – direct Client connection to the MOEX infrastructure with no intermediate connection to the Member's infrastructure.

EHS (ASP) – equivalent handwritten signature (Russian: ASP).

Instruction – electronic message signed by the Client's EHS that instructs Member to make a transaction at the Exchange.

Order – electronic message signed by the Member EHS, which constitutes an offer to other market members to conclude a trade.

SMA_ID – Client's ID used to identify this client in the trading system. Instructions are being sent on behalf of this ID. From the point of view of connectivity to MOEX, SMA_ID is similar to traditional user ID (login), with different permissions.

MASTER_ID – User ID of a trading member that is used for control of client's orders and trade capture.

Cancel On Disconnect – service for automated order cancellation on user's logoff, disconnection or heartbeat timeout.

Cancel On Drop-Copy Disconnect – additional service for SMA_ID. Orders entered per instructions from this SMA_ID will be cancelled on MASTER_ID logoff, disconnection or heartbeat timeout.

Kill Switch – additional service for SMA_ID. Allows to trading member to enable/disable a possibility to send trading instructions for a given SMA_ID online.

2 Process flow

Trading member submits an application for SMA_ID to the MOEX Client Center. The following information should be included into the application:

MASTER_ID1 and MASTER_ID2 – Member's own technological User IDs that will be used for order entry per SMA user instructions. These IDs must have permissions to trade. Either one or two MASTER_IDs can be specified. SMA or Master ID can be any ID's for any transactional protocol (FIX/TWIME/Plazall) for the derivatives market with the following requirements met:

- Plazall Master ID must have permissions to view all orders and trades of its SMA_ID.
- FIX/TWIME or Plazall Master ID's must have permission to make an order.

Note: the same MASTER_ID can be reused for multiple SMA_IDs.

The following services can be set for SMA_ID:

1. Cancel On Disconnect
2. Optional Cancel On Drop-Copy Disconnect
3. SMA checks – optional checks for SMA client's instructions that allow member to control risks.

Client instruction flow

Client connects to the trading system using his SMA_ID and sends an instruction signed by his SMA_ID.

Upon the receiving the instruction the trading system:

1. Performs basic validation
2. Checks the online status of at least one MASTER_ID linked to this SMA_ID
3. Performs SMA checks, if set

3 Functional description

The scope of this project involves:

- Implementation of SMA_IDs. Link between SMA_ID and member's MASTER_ID. Two member IDs can exist - MASTER_ID1 and MASTER_ID2.
- Checking the MASTER_ID online status upon the SMA client instruction receipt.
- Order entry by MASTER_ID, based on SMA client instruction.
- Display of MASTER_ID/SMA_ID in the Plaza2 gate replication streams.
- SMA checks
- Kill switch service
- Changes in end-of-day reports.



4 Technical changes

4.1 Implementation of SMA_IDs, changes in CGate interface

To support SMA functionality:

- new table **user** is added into FORTS_FUTINFO_REPL replication stream.
- new table **sma_master** is added into FORTS_FUTINFO_REPL replication stream.
- new table **sma_pre_trade_checks** is added into FORTS_FUTINFO_REPL replication stream.
- new field **aspref** (i4) link to Master ID, is added into tables **orders_log/multileg_orders_log** FORTS_FUTTRADE/OPTTRADE_REPL replication streams and into table **orders** FORTS_FUTORDERBOOK/OPTORDERBOOK/ORDBOOK_REPL replication streams.

4.2 SMA_ID instructions processing

When an SMA_ID enters instructions, the following conditions must be met:

1. There must be a MASTER_ID assigned to this SMA_ID.
2. At least one MASTER_ID must be logged on (see table below).

If any of these conditions are not met then the instruction is rejected.

If the instruction is accepted then an order is created. The ASPREF field of this order will be filled in with the linked MASTER_ID.

Instruction processing outcome depending on the MASTER_ID status:

<i>MASTER_ID1</i>	<i>MASTER_ID2</i>	<i>Instruction accepted (yes/no)</i>	<i>ASPPREF field filled in with</i>
Defined and active	Defined and active	Yes	MASTER_ID1 or MASTER_ID2
Defined and active	Not defined or not active	Yes	MASTER_ID1
Not defined or not active	Defined and active	Yes	MASTER_ID2
Not defined or not active	Not defined or not active	No	- (no order is registered)

If only one MASTER_ID is defined then only its activity is checked.



4.2.1 MASTER_ID activity check

MASTER_ID activity is checked using the technology similar to Cancel On Disconnect function.

I.e. MASTER_ID is considered to be inactive when it has logged off or reached heartbeat inactivity timeout of N seconds (exact value depends on protocol).

For more information, refer to:

ftp://ftp.moex.com/pub/ClientsAPI/Spectra/COD/Cancel_on_Disconnect_spectra_eng.pdf

Important: when MASTER_ID reached inactivity timeout it will be disconnected from the trading system – refer to Cancel_on_Disconnect_eng.pdf for more information.

4.2.2 Cancel on Drop-Copy Disconnect (MASTER_ID disconnection)

When a SMA_ID has got the CODcD flag set to Y then all the orders submitted per this user instructions will be cancelled when MASTER_ID1 and MASTER_ID2 become inactive.

If two MASTER_IDs have been set then orders will be cancelled only when both MASTER_IDs become inactive.

The value of the CODcD flag is set by the trading system administrator based on information from the user application for SMA_ID.

For example:

Both MASTER_ID1 and MASTER_ID2 are online.

MASTER_ID1 goes offline – orders remain active.

MASTER_ID2 goes offline – orders are cancelled.

If only one MASTER_ID has been defined (does not matter if it is MASTER_ID1 or MASTER_ID2) then orders will be cancelled when this MASTER_ID goes offline.

Only intraday anonymous orders to the book are cancelled.

4.3 Changes in XML reports

New fields asp (c20) and aspref (numeric) are added to **multilegordlog_XXYX.csv**

4.4 SMA checks

To avoid erroneous orders in the trading system, the Exchange provides sponsoring firms with the following risk management tools:

- Maximum deviation from the last price. Set in percent from the last price, in case the instrument type and/or underlying asset codes are set, check will be done for given instrument or group of instruments on given underlying asset, if not – check will be done for all SMA ID instructions.
- Maximum order value. Set in contracts, in case if instrument type and/or underlying asset code are set, check will be done for given instrument or group of instruments on given underlying asset, if not – check will be done for all SMA ID instructions.
- Negotiated trade mode prohibition. Set for all instructions from given SMA login
- Maximum volume of instructions in rubles. Set in rubles, in case if instrument type and/or underlying asset code are set, check will be done for given instrument or group of instruments on given underlying asset, if not – check will be done for all SMA ID instructions.
- Maximum sum of instructions for trading day (gross). Set in rubles, in case if instrument type and/or underlying asset code are set, check will be done for given instrument or group of instruments on given underlying asset, if not – check will be done for all SMA ID instructions.
- Maximum buy/sell position. Set in contracts for buy/sell side per client's clearing account, in case if instrument type and/or underlying asset code are set, check will be done for given instrument or group of instruments on given underlying asset, if not – check will be done for all SMA ID instructions for given client's clearing account.

4.5 Kill switch сервис:

The new non trading transaction KillSwitch is designed to block or unblock trading activity for login in online mode. All active orders can be canceled in case if login is blocked and flag 'cancel orders on block' are set. Any given login (ID) for the derivatives market can be blocked with the following requirements met:

- Trading member login (ID) can block any login that belongs to given trading member
- Broker login (ID) can block and client login that belongs to this broker
- Client ID can block and login that belongs to given client clearing register.