

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 FX market as the trading member's client where trading member enters orders per client 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 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 ID used to identify this client in the trading system. Instructions are sent on behalf of this ID. From the point of view of connectivity to MOEX, SMA_ID is similar to traditional User ID, with different permissions.

MASTER_ID – User ID of a trading member that is used for order entry and trade capture.

Cancel On Disconnect – service for automated order cancellation on user 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.

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:

1. MASTER_ID1 and MASTER_ID2 –own technological User IDs that would be used for order entry per SMA user instructions. These IDs must have permissions to trade. Either one or two MASTER_IDs may be indicated.
2. Client code.

Note: the same MASTER_ID may 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 (see details below)
3. “Trading account <-> SMA_ID” link.

Client instruction flow

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

Upon the instruction receipt the trading system:

1. Performs basic validation
2. Checks the online status of at least one MASTER_ID linked to this SMA_ID

3 Technical changes

The scope of this project involves:

- Implementation of SMA_IDs. Link between SMA_ID and member’s MASTER_ID. Two member IDs may 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 in the ASTS Bridge ORDERS table.
- Changes in end-of-days XML reports.



4 Description of project functional blocks

4.1 Implementation of SMA_IDs

New fields in the ASTS Bridge USERS table:

1. MASTER_ID1 char(12)
2. MASTER_ID2 char(12)
3. CODMODE_DC (Y/N) (default N) - Optional Cancel On Drop-Copy Disconnect.
4. MASTERUSERFLAG TYesNo (1) – This ID is the MASTER_ID.

4.1.1 Changes in the ASTS Bridge ORDERS table

New field: ASP (CHAR(12))

Data in this field is visible to trading member’s users according to their permissions, not visible to SMA clients.

For non-SMA orders this field shows User ID.

For SMA orders this field shows MASTER_ID, and USERID field shows SMA_ID.

See example below in appendix.

4.2 SMA_ID instructions processing

When an SMA_ID enters an 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 is not met then the instruction is rejected.

If the instruction is accepted then an order is created. The ASP field of this order is 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>ASP field filled in with</i>
Defined and active	Defined and active	Yes	MASTER_ID1
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 has been 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 20 seconds.

For more information refer to:

ftp://ftp.moex.com/pub/ClientsAPI/ASTS/docs/Cancel_on_Disconnect_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 CODMODE_DC attribute 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 CODMODE_DC attribute 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

4.3.1 Order Registry report

4.3.1.1 *New field "ASP"*

Attribute	Description	Required	Type	Size
ASP	Trading member equivalent handwritten signature	Yes	Character	0-12

This field always display trading member's equivalent handwritten signature. For non-SMA orders it shows trading member's User ID. For SMA orders – MASTER_ID.

This value corresponds to the ORDERS.ASP value in the ASTS Bridge interface.

See example below in appendix.

4.3.1.2 *Existing field "UserId"*

Interpretation rule for this field changes. For non-SMA orders it shows trading member's User ID (i.e. that is the current behavior).

For SMA orders this field shows SMA_ID.

This value corresponds to the ORDERS.USERID value in the ASTS Bridge interface.

4.3.2 Trade Register report

4.3.2.1 *"UserId" field*

Interpretation rule for this field changes. For non-SMA orders it shows trading member's User ID (i.e. that is the current behavior).

For SMA orders this field shows SMA_ID.

This value corresponds to the ORDERS.USERID value in the ASTS Bridge interface.



Appendix

Data example in ASTS Bridge tables and XML reports

USERS table

USER_ID	MASTERUSERFLAG	MASTER_ID1	MASTER_ID2
MD08...AC	N	MD08...AD	
MD08...AD	Y		

MD08...AC – SMA user ID

MD08...AD – Trading member user ID (EHS/ASP)

ORDERS table

USER_ID	ASP	
MD08...AC	MD08...AD	Order from SMA client instruction
MD08...AD	MD08...AD	Traditional order

Order report

UserId	ASP	
MD08...AC	MD08...AD	Order from SMA client instruction
MD08...AD	MD08...AD	Traditional order