



**TRADING
TECHNOLOGIES**

Eurex Upgrade Impact TT Customers' Reference Guide

VERSION 7.X
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Eurex New Trading Architecture (NTA)

What is it?

Eurex introduced a completely new trading platform called New Trading Architecture (NTA) on December 3, 2012. The new trading platform is expected to launch in phases over a period of six months. During this launch period, products will migrate in a stepwise approach from the current Eurex system to NTA. Once a product has been activated on NTA, it will no longer be tradable on the current Eurex system.

The new exchange platform offers new interfaces for prices and order routing. New Eurex Gateways are being developed by TT to support:

- Enhanced Market Data Interface (**EMDI**) for prices,
- Enhanced Transaction Interface (**ETI**) for orders and fills,
- **FIXML** Interface for OTC Block and Vola trade entry.

Exchange website: http://www.eurexchange.com/technology/new_trading_architecture_en.html

TT website: <https://www.tradingtechnologies.com/products/initiatives/markets/enhanced-eurex-connectivity/>

When does this take effect?

The migration of products starts on December 3, 2012, and is planned to be completed by Q2 2013. The exchange will start the migration with low volume products going to the new platform, first, and will gradually move all of them.

To do list

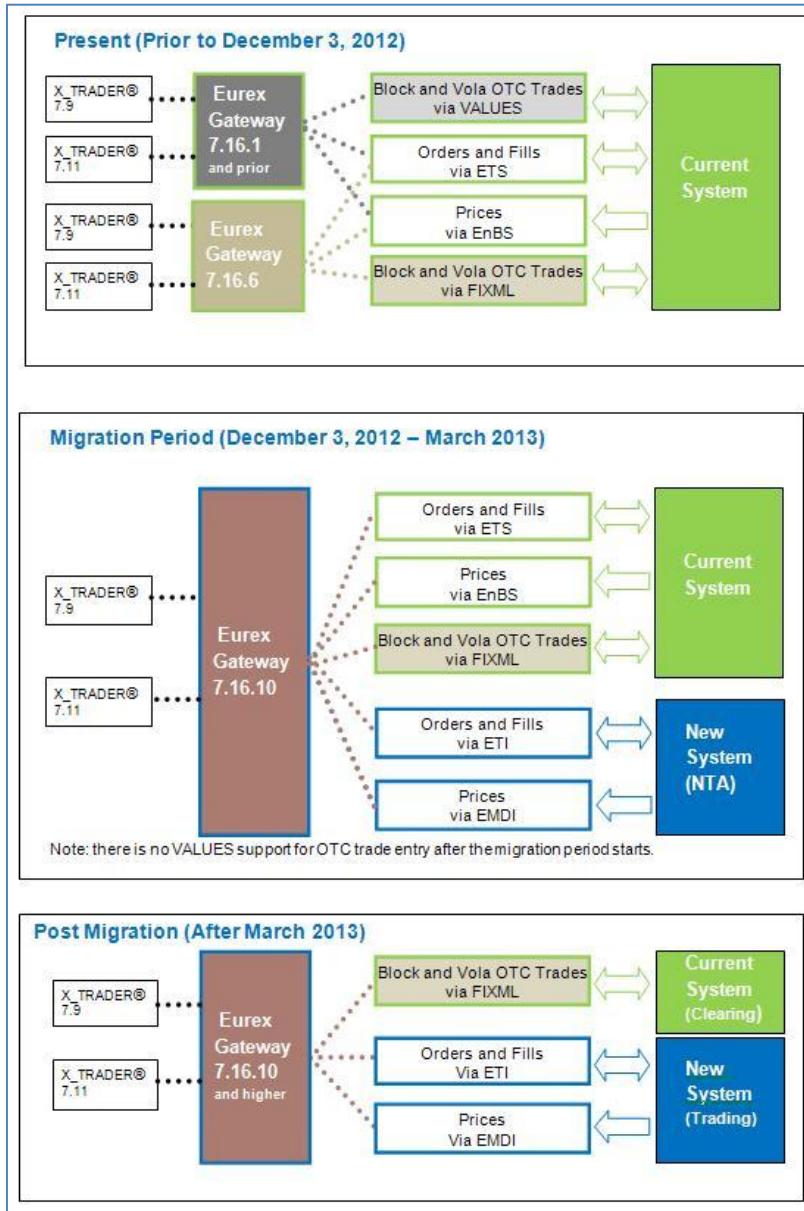
- Upgrade lines. Assure with Deutsche Boerse that the connectivity has been upgraded.
- Order new interface connectivity – EMDI, ETI, RDI, FIXML.
- Order new ETI routing sessions.
- Ensure access to the new Eurex Admin GUI.
- In the new Eurex Admin GUI: Review users' rights and passwords after the migration.
- Upgrade to TT User Setup v7.4.7.
- In TT User Setup 7.4.7: Add *User ID* and second *Password* credential for each exchange trader ID.
- Upgrade and configure your Eurex Gateway to version 7.16.8.
- Participate in the "Production Simulation" trading.

Failure to upgrade Eurex Gateway and/or TT User Setup will result in an inability to trade products on the new platform.

TT Versions (all pieces can be upgraded independently)

PRODUCT	MINIMUM VERSION	AVAILABILITY
Eurex Gateway	7.16.8	January 2012
X_TRADER®	7.9.4	Now
X_TRADER® API	7.7.1	Now
FIX Adapter	7.6.2	Now
TT User Setup	7.4.7	Now
Autospreader® SE	7.1.4	Now
Synthetic SE	7.1.3	Now
Algo SE	7.2.2	Now

Logical architecture diagrams of TT System



Customer actions in details

Review and modify users on exchange GUI.

The hierarchy of *participant* ->*business unit* -> *user* replaces the concept of *member*->*group*->*trader*. The exchange will perform an one-time migration of all current users to the new system. Each current user in addition to his (her) *Member/Group/Trader* will receive a *User ID* and a *unique numeric identifier* for the new system. *User ID* in the new system will equal to the *Trader ID* used in the current system. *Unique numeric identifier* should be used for trader identification on all electronic interfaces, e.g. ETI.

Order book sharing: In the current system, two traders from the same group can share an order book and act on each other's orders: e.g., *ABCDE M 1* and *ABCDE M 2*. In the new system, to maintain this functionality, both of the traders will have to be set up as **head traders**. The configuration of the users should be updated, if needed, through the Eurex Admin GUI. According to the exchange, the default configuration of all users after the migration to NTA will be a "head trader".

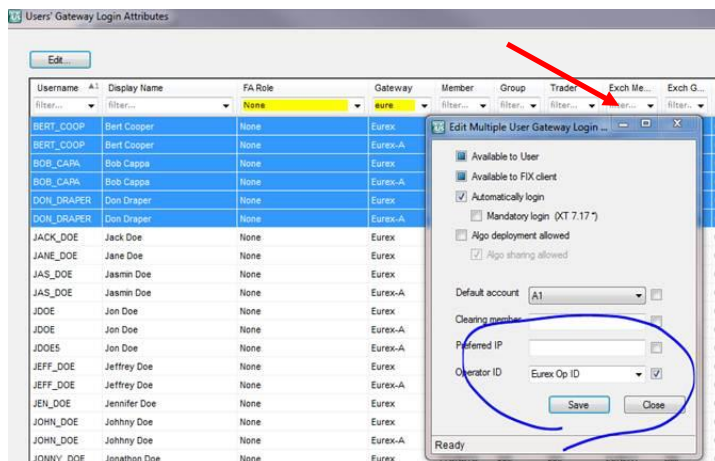
Additional passwords will also be generated for NTA; these passwords will need to be reset for all traders after the initial migration. The password reset should be done via the Eurex Admin GUI.

For further details on the traders' credentials migration, please refer to the exchange document, ["Participant and User Maintenance Manual"](#). Customers can also reach out to their Eurex Account Managers by the VIP phone number.

Add User and second Password credentials in TT User Setup.

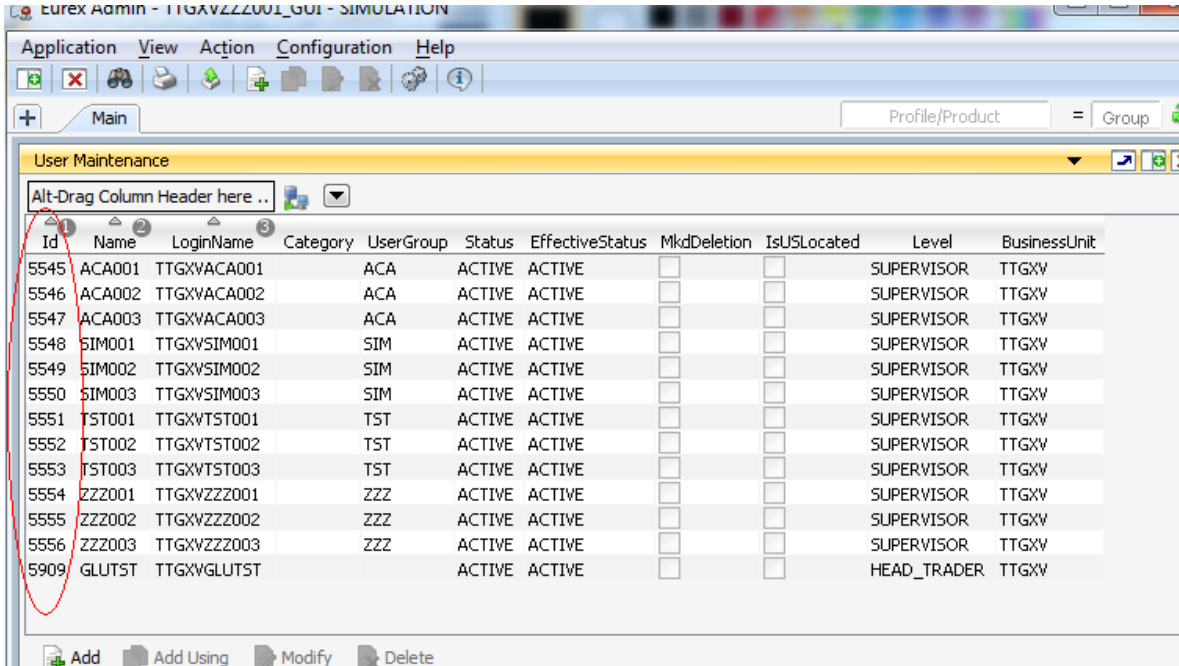
User ID configuration: In TT User Setup 7.4.7(or higher), in the *Users' Gateway Login Attributes* window, enter the **Unique numeric identifier("ID")** credential in the *Operator ID* box for each exchange trader ID configured on Eurex Gateway. Copy the same *Operator ID* credential to each TTORD ID that is mapped to the exchange trader. Failure to configure an *Operator ID* will result in an inability to route orders to NTA.

Picture 1: Configuring Operator ID.



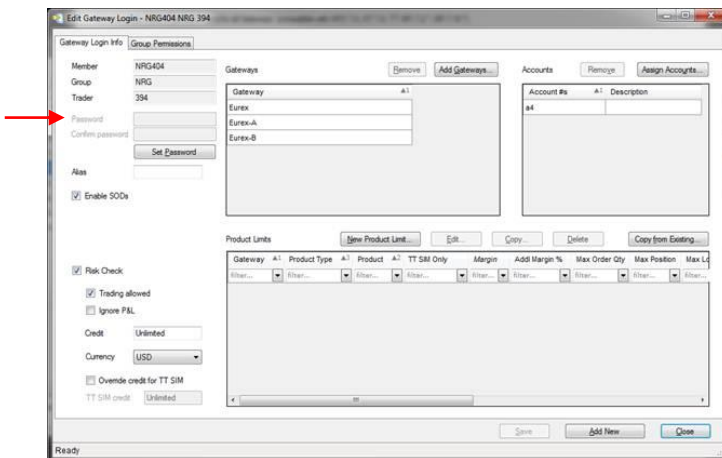
Picture 2: Example of the *Id* configuration on the Eurex Admin GUI.

The *Id* credentials need to be entered in TT User Setup *Operator ID* field.



Password configuration: In TT User Setup 7.4.7, in the *Edit gateways Login* window, add the new password for each exchange trader ID to the existing *Password* field, separate the two passwords with a slash (/) delimiter (e.g., ETSpasword/ETIpassword). The ETI password has to be reset through the new Eurex Admin GUI prior to configuration on TT. Failure to add the new password will result in an inability to route orders to NTA.

Picture 3: Adding an additional password to TT User Setup.



Configure gateways.

New Eurex Gateways will require additional sessions to connect to the new platform through the Enhanced Transaction Interface (ETI). The new interface has three different types of sessions: low frequency (LF), high-frequency (HF) and high-frequency light (HF light). To operate, Eurex Gateway will need at least one low frequency session for each membership configured on the gateway. Add additional sessions – low or high frequency - based on the projected throughput of the gateway. Current transactions-per-second (TPS) figures are 50 for LF and HF light and 150 for HF sessions.

Impact outside of upgrading

The list below represents functional differences that users of the TT system will see after an upgrade to Eurex Gateway 7.16.8. Some of the features are only available on NTA, so depending on which system a product currently trades, functionality may be different between different products.

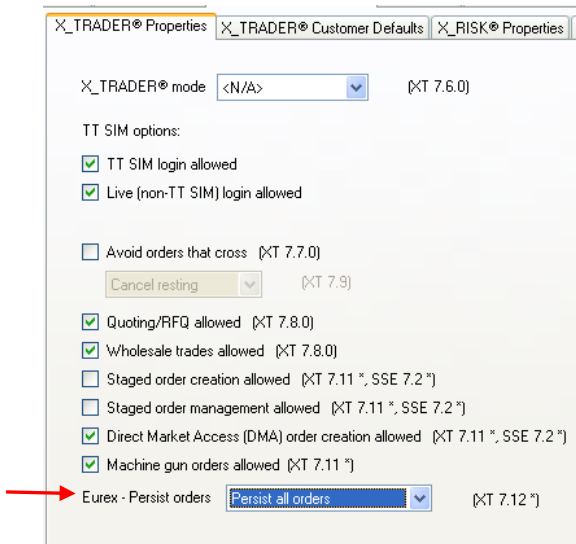
Lean* orders handling:

Lean order type – non-persistent order type that is used by HF routing sessions. On TT, GTD orders will always be lean by default; GTC and GTDate orders will always be persistent.

Eurex Gateway 7.16.8 can send all orders as persistent (even GTD) if configured so. The configuration is done in TT User Setup for each Username, and will apply to any TT client application, e.g., X_TRADER®, X_TRADER® API, FIX Adapter, etc.

*Lean orders here refer to the exchange term for the order type that is mandatory for High Frequency sessions. Do not confuse with the Lean orders of the Autospreader®.

Picture 4: Setting TT User Setup property to send GTD orders as persistent.



Exchange time stamps on orders and fills: Will be in UTC time zone, as oppose to CET (UTC+1) on the current architecture. Customers should review their back office systems, as well as FIX Adapter’s configurations, and perform necessary adjustments for the time zone.

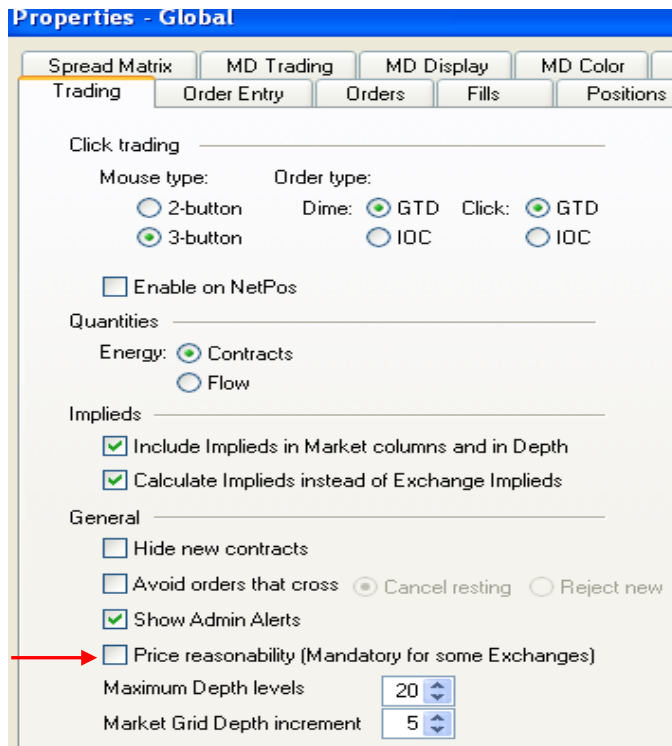
Enhanced strategy creation: The new architecture supports any type of options and futures series combinations with up to five legs without a strategy template. Existing X_TRADER's 7.11.x Strategy Creation functionality supports this new exchange feature.

Stop Limit order type: Will be supported natively on all current production released client applications. Synthetic Server Engine (SE) application will not be required to send Stop Limit orders. According to the exchange, Stop Limit orders will not be available on Day1 of the NTA launch.

Book or Cancel order type: Not currently supported on TT.

Price reasonability check: TT will support 'none'(when unchecked) or 'optional'(when checked) settings only, by utilizing the existing check box in the X_TRADER's properties. The 'mandatory' option cannot be configured; the exchange performs the extended price check in any case.

Picture 5: X_TRADER properties - setting "Price Reasonability" checks on Eurex orders.



Strike prices in options contract names: Will now be displayed with the precision, e.g. *ODAX C132.10*. Customers will need to update their workspaces with the new contract names, FIX Adapter users will need to adjust their message formats for strike prices. Also please review the gateway release notes for potential Back Office Bridge and Trade Tracker impacts.

Inquire function: Will no longer be supported as the exchange removed the functionality from the API. Inquire action will be rejected by the gateway for regular orders. OTC trades can still be inquired from the gateway.

OTC Trade Entry

As VALUES API is being phased out by the exchange, TT will be replacing the OTC router with the FIXML- based software. Eurex Gateway 7.16.6 is currently available and supports FIXML-based OTC trade entry. Eurex Gateway 7.16.8, that supports NTA will only contain the FIXML-based OTC router.

Check List

- Obtain FIXML connectivity from the exchange.
- Create FIXML accounts through the exchange portal.
- Create SSL certificates and upload public keys to the portal.
- Upgrade Eurex gateways to v7.16.6 or higher.
- Configure the gateways.

Block Trade

When entering the OTC Block or Vola trade from Eurex Gateway v7.16.6 or higher, customers will need to confirm that their counterparty is prepared to receive trades entered as Multilateral OTC Block Trades with two legs.

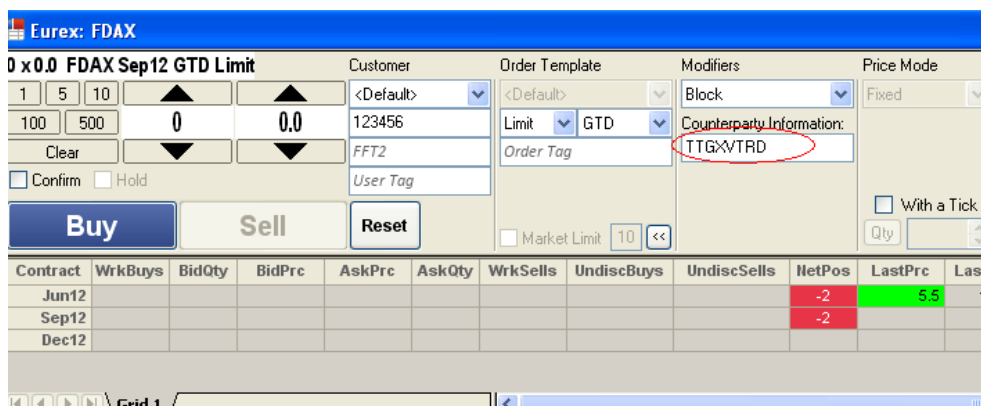
If one counterparty (Buy or Sell side) upgrades to Eurex Gateway 7.16.6, the other counterparty, in order to take the opposite side of the trade, should use one of the following solutions:

- Eurex Gateway 7.16.6 or higher.
 - Note:** Previous versions of Eurex Gateways do not support Block trades entered through FIXML.
- Eurex native GUI.
- A custom FIXML-based application with the support for *OTC Block Trade* functionality.

Functional Impact

1. “**Destination**” field for OTC Block trade entry requires specifying *MemberGroup* of the counterparty instead of just *Member* credential as on the previous versions of the gateway.

Picture 6: Entering Counterparty Information for Block OTC Trade in X_TRADER.



2. **“Order Number”** column in the order book now displays three reference numbers:
 - <Block Trade Reference number> - B<Buy side Block Trade ID > - S< Sell side Block Trade ID>.
 - a. *Block Trade Reference number* is also called *Link ID*. This number is the same for all legs of the multilateral trade, and can be used to retrieve the multilateral trades on Eurex GUI.
 - b. *Block Trade ID for the Buy side* – unique transaction ID for the buy leg of the Block trade, can be used to retrieve and approve the buy side of the OTC Block Trade on Eurex GUI
 - c. *Block Trade ID for the Sell side* – unique transaction ID for the sell leg of the Block trade, can be used to retrieve and approve the sell side of the OTC Block Trade on Eurex GUI

Picture 7: Display of Order Number of Block OTC Trade in X_TRADER.

ve	TTStatus	B/S	Qty	Product	Contract	Price	Order Type	TIF	Modifier	Trigger Price	Advanced	Exec Qty	Work Qty	Undisclosed	Account Number	Order Number
	Waiting for Approval	B	3001	ALVF	Feb13	80.00	Limit	GTD	Block			0	3001		TTORDTST001	0016KD-B0016KE-S0016KF

Vola Trade

There is no dependency on the version of Eurex Gateway software that the counterparties should use for entering OTC Vola trades.

If one counterparty upgrades to Eurex Gateway 7.16.6 or higher with FIXML support, the other counterparty, in order to take the opposite side of the trade, could use one of the following solutions:

- Eurex Gateway 7.16.6 with FIXML-based OTC trade entry.
- Eurex Gateways 7.14-7.15 with VALUES-based OTC trade entry.
- Eurex native GUI.
- A custom FIXML-based application with the support for Vola trade entry functionality.