X-pand into the Future

eurex circular 194/13

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Authorized by: Jürg Spillmann

Eurex Exchange's T7 Technology Roadmap Update

Related Eurex Circulars: 070/13, 092/13, 110/13, 127/13

Contact: Technical Key Account Manager via VIP number, cts@eurexchange.com or
Markets Services, T +49-69-211-1 31 18, technology.roadmap@eurexchange.com

Content may be most important for:	**Attachments:**
➲ All departments	None

Summary:

1. Compression of reports including Market Maker Performance Reports (MMPR)

Eurex will compress all Market Maker Performance Reports starting with the delivery on **10 September 2013** following the methods used for all T7 reports.

2. Enhanced Network Connectivity, introduction of last mile redundancy

To further enhance Eurex T7 connectivity, Eurex will offer as a standard configuration for dual connected installations on Ethernet WAN circuits access to both sides of the Trading Gateway, FIX Gateway and Common Report Engine infrastructure via a Eurex MIC, and to both GUI Proxy Server sides via a Eurex GUI Channel.

3. Ordering of the Eurex Enhanced Order Book Interface (Eurex EOBI)

The new optional Eurex EOBI for Eurex Exchange's T7 can now be ordered via the "Requests & Configuration" option in the "Technical Connections" section of the Eurex Member Section.

4. Eurex FIX Gateway Order Drop Copies

With release 2.0 of Eurex Exchange's T7, the FIX back office session type will be extended, enabling participants to receive drop copies of all their trades and FIX messages related to standard orders of the trading business unit where the orders originated.

5. Redistribution of Existing ETI sessions

Eurex has reviewed the load pattern of the high frequency trading gateways, verifying if optimization of the current load balancing is necessary. Please note that reassignment of sessions to high-frequency trading gateways **will not take place** as current load balancing is optimal.

6. New Trade Enrichment Rule concept

With release 2.0 of Eurex Exchange's T7, the replacement rule concept for adding clearing information to trades originating from orders using the short layout or from quotes will be discontinued.

eurex

Eurex Deutschland
Börsenplatz 4
60313 Frankfurt/Main
Mailing address:
60485 Frankfurt/Main
Germany

T +49-69-211-1 17 00
F +49-69-211-1 17 01
memberservices@
eurexchange.com
Internet:
www.eurexchange.com

Management Board:
Thomas Book, Michael Peters,
Andreas Preuss, Peter Reitz,
Jürg Spillmann

ARBN: 101 013 361

Eurex Exchange's T7 Technology Roadmap Update

1. Compression of reports including Market Maker Performance Reports (MMPR)

To improve both the internal delivery time to the Common Report Engine (CRE) and the download time for participants, all reports for Eurex Exchange's T7 which are delivered to the participant area within the CRE are delivered only in a compressed format similar to the public area since 28 May 2013 (simulation, environment 95) and since 9 July 2013 (production, environment 90). Please see Eurex circular 092/13 for more information.

Starting with business day 9 September 2013, Eurex will also provide all Market Maker Performance Reports (production only) in the T7 naming and distribution convention.

As a result, the Market Maker Performance Reports will be compressed (zipped). Accordingly, the file type extension of these reports will change from "TXT" to "TXT.ZIP". The Clearing Member ID will no longer be part of the file name. Furthermore the environment designation will change from "00" (Eurex production) to "90" (Eurex Exchange's T7 production).

The following reports are affected:

Report ID	File name (old)	File name (new)
TD940	00RPTTD940<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD940<MEMBER><YYYYMMTT>.TXT.ZIP
TD941	00RPTTD941<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD941<MEMBER><YYYYMMTT>.TXT.ZIP
TD942	00RPTTD942<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD942<MEMBER><YYYYMMTT>.TXT.ZIP
TD943	00RPTTD943<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD943<MEMBER><YYYYMMTT>.TXT.ZIP
TD944	00RPTTD944<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD944<MEMBER><YYYYMMTT>.TXT.ZIP
TD945	00RPTTD945<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD945<MEMBER><YYYYMMTT>.TXT.ZIP
TD946	00RPTTD946<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD946<MEMBER><YYYYMMTT>.TXT.ZIP
TD947	00RPTTD947<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD947<MEMBER><YYYYMMTT>.TXT.ZIP
TD948	00RPTTD948<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD948<MEMBER><YYYYMMTT>.TXT.ZIP
TD949	00RPTTD949<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD949<MEMBER><YYYYMMTT>.TXT.ZIP
TD956	00RPTTD956<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD956<MEMBER><YYYYMMTT>.TXT.ZIP
TD957	00RPTTD957<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD957<MEMBER><YYYYMMTT>.TXT.ZIP
TD959	00RPTTD959<MEMBER><YYYYMMTT><CLEARER>.TXT	90RPTTD959<MEMBER><YYYYMMTT>.TXT.ZIP

XML reports will be provided in compressed format as "XML.ZIP" following the same naming convention.

The change will be effective for business day 9 September 2013 (reports delivered from 10 September onwards).

2. Enhanced network connectivity, introduction of last mile redundancy

To further enhance Eurex T7 connectivity, Eurex offers redundant access to both sides of the Eurex ETI Trading Gateway, Eurex FIX Gateway, Eurex Admin GUI and Common Report Engine infrastructure via a Eurex MIC and to both sides of the T7 Trader GUI servers via a Eurex GUI channel as standard for each connection of dual connected installations via Ethernet WAN circuits (see Eurex circular 110/13).

Excluded from this enhancement are combined access, iAccess, E1/T1, 10Gbit/s Co-location connections, and single line connections.

The enhancement facilitates a network routing failover whenever a single circuit fails, instead of the application having to failover to the other infrastructure side. It will be provided at no additional cost.

The enhanced configuration will also be provided as the standard for new installations connected via dual Ethernet WAN circuits in the future.

Excluded from this enhancement are combined access, iAccess, E1/T1 connections, 10Gbit/s co-location connections and single line connections.

As a result of this improved last mile redundancy the following IP prefixes will be propagated via Eurex Exchange's T7 Ethernet WAN MIC/GUI connections in a dual connection setup:

	Simulation	**Production**
GUI Proxy Servers prefixes	193.29.89.224/28 193.29.95.224/28	193.29.91.224/28 193.29.93.224/28
Eurex ETI Trading Gateways prefixes	193.29.89.64/27 193.29.89.128/27 193.29.89.96/27 193.29.89.160/27	193.29.91.64/27 193.29.91.128/27 193.29.91.96/27 193.29.91.160/27
Common Report Engine prefixes	193.29.90.64/27 193.29.90.96/27	
FIX Gateway prefixes	90.150.253.0/24 90.151.253.0/24	

This enhancement also enables Eurex Participants to further increase redundancy by using two instances of a redundant gateway protocol such as HSRP or VRRP in the Eurex T7 Member LAN, thus avoiding impact of a participant's router failure.

Please note the following:

- When using a first hop gateway protocol such as HSRP or VRRP, the following should be considered:
  - Two HSRP/VRRP groups are recommended where each Eurex facing router has one active group, so that static routes on servers/firewalls for side 1 prefixes point to the side 1 active group virtual IP, and for side 2 prefixes to the side 2 active group virtual IP.
  - Care should be taken to ensure that the active groups and static routes are aligned with the primary paths for side 1 or 2.
- If only one HSRP/WRRP group is used and the server static routes use this virtual IP address, it should be considered to use the BGP local-preference feature, to give the A prefixes preference over the A circuit and B over the B circuit.
- If BGP routing filters are used on the routers facing Eurex Exchange's T7 connectivity, the filters will need to be adapted to take advantage of the A/B failover via one circuit.
- If the new A/B failover is not desired, BGP routing filters can be used to enable the routes for the relevant side only, as is today.

An optional connection test will be offered on Saturday, 21 September 2013 between 15:00 and 17:00 CET. The T7 production system will be available for connectivity testing on the ETI, market data interfaces and via the T7 Admin GUI and T7 Trader GUI. Reference data will be available via RDI and RDF.

Please note: The FIX gateways will not be available for testing.

Please also note: Further information relating to Eurex Exchange's T7 routing prefixes can be found in the "Network Access Guide to T7 and C7" manual on the Eurex website www.eurexchange.com under the link:

Technology > T7 > System Documentation > Release 2.0 > Network Access

3. Ordering of the Eurex Enhanced Order Book Interface (Eurex EOBI)

As previously announced in Eurex circular 070/13, Eurex Exchange will introduce the new Eurex Enhanced Order Book Interface (Eurex EOBI) approximately one week after the introduction of Eurex Exchange's T7 release 2.0, which is currently planned for 25 November 2013.

The new Eurex EOBI will provide the entire visible order book by publishing information on each individual order and quote along with un-netted executions and state information in real-time. The new interface is optional and will be available for a selected group of Eurex Exchange's (benchmark) futures and will provide an additional alternative to users of the Eurex Enhanced Market Data Interface (Eurex EMDI).

The Eurex EOBI will be offered on 10 GB connections in co-location installations only and will be available either as a standalone service or can be combined with an existing Eurex EMDI connection. Depending on the type of connection chosen, the following monthly connection fees will apply once the interface becomes active in the production environment:

Service	Price in EUR (per month)
Co-Location Market Data Eurex EOBI	5.500
Co-Location Market Data Eurex EMDI & Eurex EOBI	6.500

Ordering of the Eurex EOBI for both the simulation and production environment is now possible in the Eurex Member Section on the Eurex website under the following path:

Member Section > Technical Connection > Requests & Configuration >
New Request > New Connection

4. Eurex FIX Gateway Order Drop Copies

With release 2.0 of Eurex Exchange's T7, the FIX back office session type will be extended, enabling participants not only to receive drop copies of all their trades, but also drop copies of all FIX messages related to standard orders of the trading business unit where the orders originated.

In order to receive order drop copies using an existing or a new FIX session, the FIX session ID must be activated accordingly. The configuration change can be made in the Member Section of the Eurex website under the following path:

Member Section > Technical Connection > Requests & Configuration >
New Request > Change Session / New Session

The new configuration option for simulation and production is now available in the Eurex Member Section. The Eurex FIX Gateway will support order drop copies in release 2.0 of Eurex Exchange's T7, which will be available in simulation as of 23 September 2013 and in production from 25 November 2013 onwards.

Please note that changes made in the Eurex Member Section related to the FIX Gateway configuration will be active on the next business day but no earlier than the activation date of the function in simulation or production, respectively.

5. Redistribution of Existing ETI Sessions

Following the migration of all products to Eurex Exchange's T7, Eurex has reviewed the load pattern of the high frequency trading gateways, with the aim of optimizing the current load balancing (see Eurex circular 110/13).

Following the analysis of the current load balance, Eurex considers the current session-to-gateway assignment to be optimal and has decided that a session reassignment is not necessary at this time. Reassignment of the sessions to the high frequency trading gateways will **not** take place as previously indicated on the weekends, 21 September and 28 September, 2013.

Participants must ensure, however, that their applications support automatic gateway reassignment. Hardcoding of gateway assignments may lead to the inability to connect to the trading gateways.

Focus days are provided in the simulation environment at which all trading gateway assignments are changed at random. The simulation calendar provides the exact dates when the gateway reassignments will be performed.

All possible trading gateways are listed in the "Network Access Guide to T7 and C7" manual which is available on the Eurex website under the path:

Technology > T7 > System Documentation > Release 2.0 > Network Access

6. New trade enrichment rules concept

In T7 release 2.0, Eurex Exchange will discontinue the replacement rules functionality and introduce a new and easy-to-use trade enrichment rules concept that extends the current functionality. Using the Eurex Admin GUI, participants will be able to define trade enrichment rules as a simple index table and upon trade entry will specify the exact trade enrichment rule to be used at the time of execution of the quote or order entered using the short layout. Each enrichment rule will be identified by a participant-defined integer identifier, ranging from 1 to 10,000. The Eurex Admin GUI will support administration of trade enrichment rules prior to release 2.0.

The new trade enrichment rules concept extends the current functionality, by including support for Take-Up Member as well as the dedicated KRX (Korea Exchange) and TAIFEX fields.

> **IMPORTANT:** The trade enrichment rules concept is not compatible with the current concept; the replacement rules logic will no longer be supported with T7 release 2.0.

Participants should complete the setup of their trade enrichment rules prior to the launch of T7 release 2.0. This includes implementing the specific logic for assigning trade enrichment rule identifiers to the applicable Eurex ETI requests.

On the release 2.0 launch day, Eurex Exchange will discontinue the use of the replacement rules functionality and start using the trade enrichment rules. If trade enrichment rules are not in place, the Eurex Clearing system will assign system defaults as required for clearing. Updates to the trade enrichment rules only take effect on the next business day.

Report TE540 (Daily Order Maintenance) will be enhanced to include the Enrichment Rule ID specified on orders entered using the short layout.

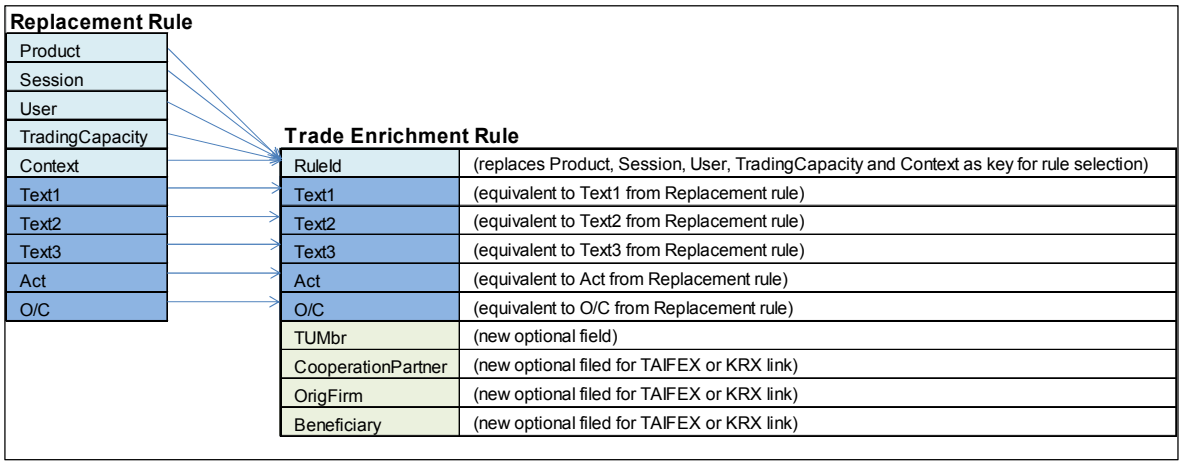
Setup of the new trade enrichment rules can already be tested in simulation with T7 release 1.2. The introduction of T7 release 1.2 in production is planned for 9 September 2013.

The Eurex Admin GUI in release 1.2 has both the “trade enrichment rules view” and the “replacement rules view”. Both views offer import and export functions which allow exporting existing replacement rules to TXT or CSV files. Such files can be modified, for example in MS Excel, and the modified file can be uploaded to the trade enrichment rules view.

The format has to be converted, as the old replacement rules and the new trade enrichment rules consist of different fields:

Replacement rules fields (old)	Trade enrichment rules fields (new)
Product	**RuleID**
Session	n/a
User	na
TradingCapacity	n/a
Context	n/a
Text1	**Text1**
Text2	**Text2**
Text3	**Text3**
Act	**Act**
O/C	**O/C**
n/a	**TUMbr** (new optional field)
n/a	**CooperationPartner** (new optional field for TAIFEX or KRX link)
n/a	**OrigFirm** (new optional field for TAIFEX or KRX link)
n/a	**Beneficiary** (new optional field for TAIFEX or KRX link)

Accordingly, rule conversion is as follows:



For further details of the new concept, please refer to the Eurex Exchange's T7 release 2.0 Release Notes, chapter 2.1.

Additionally, a dedicated document “Trade Enrichment Rule Migration Guide” will be available shortly on the Eurex website under the following link:

Technology > T7 > System Documentation > Release 2.0 > Overview and Functionality

7. Contacts

If you have any questions or require further information on Eurex Exchange’s T7, please contact the Markets Services team at tel. +49-69-211-1 31 18 or via e-mail to: technology.roadmap@eurexchange.com. Alternatively, please contact your Technical Key Account Manager using your VIP number or via e-mail to: cts@eurexchange.com.

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