



eurex circular 193/06

Date: Frankfurt, September 18, 2006
Recipients: All Eurex members and vendors
Authorized by: Jürg Spillmann



High Priority

Eurex Technology Roadmap

Contact: Customer Support, tel. +49-69-211-1 17 00

Content may be most important for:

☞ All departments

Attachments:

1. Fax Reply Sheet Eurex Technical Workshop
2. Market Data Distribution Services - Connection Prices
3. Eurex Broadcast Service: Order /Cancellation of a Connection (form)

Summary:

Against the background of a recognizable trend towards algorithmic trading strategies (Program Trading, Black Box, Grey Box Trading) in the financial industry and based on specific requests from customers, the management boards of the Eurex exchanges decided on implementation of extensive measures in the Eurex[®] system in order to support its customers' modified trading models. Main objectives of the changes are to increase throughput and reduce system response times, distribution of un-netted market data in real-time, improve flexibility of connection options by means of introducing a new concept for member interfaces and optimization of risk management. These objectives will be achieved by means of far-reaching software optimization and application of state-of-the-art hardware.

Implementation of the Eurex Technology Roadmap is scheduled to take place in two steps. The introduction of the first phase is planned to take place on **December 18, 2006**. With this circular we want to give you a first overview of and provide you with information regarding the planned measures.

Please note that implementation of the measures is subject to approval by the supervisory bodies. Consequently, changes to any of the measures described in this circular may become necessary.

Eurex intends to make this information capability available to all of its Members, including those Eurex Members that trade from Eurex trading terminals located in the U.S., subject to U.S. regulatory approval. Members should keep in mind that this new information capability does not alter the products that can be traded from Eurex terminals located in the U.S.



Eurex Technology Roadmap

A. Planned Package of Measures

1. Market Data Distribution un-netted and real-time

The new optional service of market data for Eurex trading members offers the opportunity to receive complete real-time price information in un-netted form on all changes to the order book (extended order book depth) and to subscribe to data streams, while determining both the scope of information (order book depth) and relevant products themselves. Distribution of un-netted price information results in much higher data volumes, which, in turn, requires considerably higher connection bandwidths in case Members wish to make use of this optional service of market data. Paired with higher network bandwidths and an additional machine-oriented interface, the concept provides reduced latency in distributing market data, most importantly in peak load situations.

The new optional service of market data distribution will be introduced as additional option to the existing distribution of netted price information via Public Inside Market Broadcast. The current connection via VALUES API (Virtual Access Link Using Exchange Services Application Programming Interface) will remain unchanged. As before, transaction data and Private Broadcast data will be transmitted by means of this connection.

In order for Eurex to offer un-netted market data to its members as quickly as possible, it is planned carry out the implementation in two phases.

In the first phase, Eurex will implement distribution of the entire price chain in both real-time and un-netted form with the market depth available today (i.e. order book depth 1 for options, order book depth 5 or 10, respectively, for futures). This will take place on December 18, 2006. Distribution of these data will take place via an additional connection with optional 10 Mbit/s bandwidth to a new interface.

In the second phase, scheduled to take place along with the introduction of Eurex Release 10.0 in fourth quarter 2007, a new distribution mechanism will offer the opportunity to receive additional price information. Also, a subscription model will enable members to configure desired market data individually, based on products. In this connection, Eurex will enable trading members to freely select bandwidth for the connection to the new extended interface. In addition, it will be feasible in the future to send trading transactions to the Eurex Exchanges via the new extended interface.

2. Increase of Throughput and Improvement of System Response Times

Software Optimizations

By means of optimizing various software components, Eurex is striving to achieve considerable reduction of system response times and increase of throughput of the entire system.

In particular, non-persistent quotes and optional, non-persistent orders will be introduced, causing considerable acceleration during order book processing. During normal operation, this change will not affect market participants. Only in the unlikely case of an interruption of technical order book processing, all quotes and all orders marked as non-persistent will be deleted, so that they will no longer appear in the order book of the affected product. Consequently, they will have to be re-entered into the order book by the market participants.

Hardware

Implementation of a balanced system requires taking into account all factors of influence, i.e. software components, computer systems and network, as well as their interaction in a dynamic system of rules.

Consequently, in parallel to the measures explained above, Eurex will extend its hardware by using state-of-the-art high performance components (semiconductor hard discs, E/A controller, Itanium Dual Core Processors), in order to increase performance of the host system network. Changes in the system architecture, which even today performs scaling in a successful way, will not be necessary.

In total, changes result in a reduction of response times for transactions and particularly minimization of dispersion of response times, in order to guarantee fast processing particularly in peak situations. As a result, further growth will be possible by means of making available higher system capacity for both the entire system and all of its components.

3. Flexibilization of Connection Options

Customers' wish for a more flexible access to the Eurex[®] system will be accommodated by means of introducing a new interface concept.

In addition to the established VALUES API interfaces, Eurex will in the future offer to its members a new machine-oriented binary interface, referred to in section 1 as new extended interface. Other than for the current VALUES API and GATE (Generic Access To Exchanges) concept, the Eurex Exchanges will not provide any software that needs to be installed on the member's infrastructure.

Consequently, trading members making use of the new binary interface (socket-based interface) will be free to choose any operating system software and hardware platform they wish to use in their installations. In addition to that, it will be possible to considerably reduce response times during data transmissions.

The new interface will be implemented during the first phase of the above-mentioned market data service on December 18, 2006. At the beginning, it will support the uni-directional high speed reception of market data only.

In the second phase, which is scheduled to take place along with the introduction of Eurex Release 10.0 in fall 2007, new basic trading functions (order and quote management) and extensions of market data distribution mentioned under point 1. will be made available via the new interface. Accordingly, both interface specification and layouts will have to be modified in phase 2. The basic concept of the interface, however, will remain unchanged.

4. Risk Management - Features

As an adjustment to trading automatization and increase of trading activities, improved features for risk management for clearing and trading members will be made available.

The planned measures include sophisticated and improved pre-trade limit controls, enhanced close-to-real-time risk management as well as improved instruments for dealing with extraordinary market scenarios for clearing members and the clearing house.

B. Further Information

Further information on the Eurex Technology Roadmap and Eurex Release 9.0 will be given during one of our workshops.

The places and dates are:

- London, September 27, 2006
- Frankfurt, September 28, 2006

To allow for better planning of the dates, please register yourself by means of the attached reply form.

Should you have any questions or require further information regarding the new optional range of market data, please contact the Customer Support Team at telephone +49-69-211-1 17 00 or e-mail: customer.support@eurexchange.com.

Prospective publication dates for further information and planned introduction dates of more new features will be announced in time by means of Eurex circulars.

Attached please find for your convenience, a list of connection prices and an order form for the new optional service of Market Data Distribution.

Please also note in this context related publications by Xetra und Market Data & Analytics.

Frankfurt, September 18, 2006

Fax Reply 1/2

+49-69-211-11701

Eurex Technical Workshop

We are delighted to invite you to our Eurex Technical Workshop. This session will give you an excellent opportunity to get information on the following developments on Eurex:

- **Eurex Release 9.0:** Technical Implications, Rollout
- **Network Upgrade:** Status, Rollout
- **Eurex Technology Roadmap:** Overall Concept, Technical Implications and Rollout

We kindly ask you to complete this form and return it by September 22, 2006.

COMPANY

MEMBER/VENDOR ID

We are interested to participate in

London on September 27, 2006 10:30 – 12:30
Cabot Hall, Cabot Place West, Canary Wharf, London E14 5AB

London on September 27, 2006 14:30 – 16:30
The City Presentation Centre, 4 Chiswell Street, Finsbury Square, London EC1Y 4UP

Frankfurt on September 28, 2006 16:00 – 18:00
Deutsche Börse AG, Kube 555, Neue Börsenstraße 1, 60487 Frankfurt/Main

Fax Reply 2/2

MEMBER/VENDOR ID

Participant 1

NAME

TELEPHONE

TELEFAX

E-MAIL

FUNCTION

Participant 2

NAME

TELEPHONE

TELEFAX

E-MAIL

FUNCTION



Eurex Frankfurt AG Market Data Distribution Services- Connection Prices

Connection: 10 Mbit/s Ethernet

	Member Location	Price per month
1	Amsterdam ,Chicago, Dublin, Frankfurt, Helsinki, London, Madrid, Milan, New York, Paris Vienna, Zurich	3,500 Euro
2	Austria, Belgium, Denmark, Destin, Finland, France, Germany, Great Britain, Italy, Luxembourg, Netherlands, Portugal, Singapore, Spain, Sweden, Switzerland	6,000 Euro
3	Sydney	10,000 Euro
4	Athens	20,000 Euro
5	Gibraltar	30,000 Euro

**iAccess: Price for 10 Mbit/s internet connection 750 Euro per month
All prices are valid as of September 18, 2006.**

Eurex - Broadcast Service:
 Bestellung / Kündigung einer Anbindung
 - *Broadcast Service:*
 Order / Cancellation of a Connection

X - p a n d i n t o t h e F u t u r e



Eurex Frankfurt AG
 Customer Support
 D-60485 Frankfurt am Main

Fax: +49-69-211-61 05 02

Auftraggeber / Applicant

Name des Unternehmens / Company name

Straße oder Postfach / Street or post-office box

Land, PLZ und Ort / Country, postal code and town

Telefon / Phone

Fax

E-Mail / E-mail

Eurex Member ID / Provider ID

C C C C C

Hiermit erteilen wir den Auftrag zur Anbindung an einen Access Point der Gruppe Deutsche Börse.
We hereby apply for connection via a access point of Deutsche Börse Group.

Anbindungsbestellung
Connection order

Anbindungskündigung
Connection cancellation

Anzahl 10 Mbit/s Ethernet Anbindung(en)
 No. 10 Mbit/s Ethernet connection(s)

Bei Kündigung bestehender Anbindungen Angabe der Leitungsbezeichnung /
For cancellation of existing connection(s) please give Circuit ID

1.:

2.:

Anzahl 10 Mbit/s Internet-Anbindung(en)¹
 No. 10 Mbit/s Internet connection(s)¹

Nur für Simulation / *for simulation only:*

Anzahl Internet-Anbindung(en)
 No. Internet connection(s)

Lokation für die Produktionsanbindung / *Location for the connection for production*

Standort des Leitungsabschlusses / *Point of line termination*

Name des Unternehmens / *Company name*

Straße / *Street*

Land, Postleitzahl und Ort / *Country, postal code and town*

Gebäudeteil, Etage und Raum-Nr., Rack-Nr. / *Part of building, floor and room no., rack no.*

Router und Leitungsabschluss befinden sich im selben Raum
Router and point of line termination are located in the same room

Router und Leitungsabschluss befinden sich in unterschiedlichen Räumen
Router and point of line termination are located in different rooms

Lokation der Hauseinführung (Bezeichnung durch den lokalen Netzwerk-Provider)
Location of building entry (description by local network provider)

Beschreibung der Hauseinführung / *Description of building entry*

¹ Die Festverbindung zum Internet Service Provider (ISP) wird vom Auftraggeber selbst beauftragt. Die vom ISP bereitgestellte IP-Adresse ist der Eurex mitzuteilen. / *A dedicated connection between the customer and his Internet Service Provider (ISP) must be ordered by the applicant. The applicant is requested to name Eurex the IP-address provided by the ISP.*

Technischer Ansprechpartner vor Ort / Technical contact person at location

Vorname und Name / First name and family name		Vertreter: Vorname und Name / Deputy: first name and family name	
Telefon / Phone	Fax	Telefon / Phone	Fax
E-Mail / E-mail		E-Mail / E-mail	

Lokation für die Simulationsanbindung, falls nicht identisch mit der Lokation für Produktionsanbindung / Location for the connection for simulation if not identical with the location for the connection for production

Standort des Leitungsabschlusses / Point of line termination

Name des Unternehmens / Company Name

Straße / Street

Land, Postleitzahl und Ort / Country, postal code and town

Gebäudeteil, Etage und Raum-Nr., Rack-Nr. / Part of building, floor and room no., rack no.

Router und Leitungsabschluss befinden sich im selben Raum
Router and point of line termination are located in the same room

Router und Leitungsabschluss befinden sich in unterschiedlichen Räumen
Router and point of line termination are located in different rooms

Lokation der Hauseinführung (Bezeichnung durch den lokalen Netzwerk-Provider)

Location of building entry (Description by local network provider)

Beschreibung der Hauseinführung / Description of building entry

Falls nicht identisch: Technischer Ansprechpartner vor Ort / If not identical: Technical Contact Person at location

Vorname und Name / First name and name		Vertreter: Vorname und Name / Deputy: First name and name	
Telefon / Phone	Fax	Telefon / Phone	Fax
E-Mail / E-mail		E-Mail / E-mail	

Mit Unterzeichnung dieses Zugangsformulars verpflichtet sich der Auftraggeber, sämtliche Kosten für die Installation und Bereitstellung der Anbindung zu tragen. Dies gilt auch für den Fall, dass

- die Bestellung vom Antragsteller zurückgezogen wird;
- die Anbindung trotz Bereitstellung nicht vom Auftraggeber in Betrieb genommen wird.

Anbindungskosten werden mit der Bereitstellung der Anbindung durch die Eurex Frankfurt AG fällig. Die Kosten sind dem Preisverzeichnis „*Market Data Distribution Services - Connection Prices*“ zu entnehmen. Preise zzgl. gesetzlicher Mehrwertsteuer.
Bei Kündigung der Zulassung bzw. Anbindung werden die Kosten bis einschließlich des Kündigungsmonats erhoben.

Die Eurex Frankfurt AG beabsichtigt, das neue und optionale Marktdatenangebot allen Handelsteilnehmern der Eurex zur Verfügung zu stellen. Zu beachten ist, dass die Nutzung des neuen Informationsangebots keine Auswirkungen auf den Umfang der Eurex-Produkte hat, die von in den USA ansässigen Eurex-Handelsteilnehmern gehandelt werden dürfen.

By signing this access order form the applicant is committed to bear all costs for installation and provision of the connection.

This also applies if

§ *an order is withdrawn by the applicant*

§ *a connection provided is not put into operation by the applicant*

Connection costs are due after Eurex Frankfurt AG has provided the connection. The costs can be deducted from the price list "Market Data Distribution Services- Connection Prices". Fees are exclusive of VAT.

Upon cancellation of a connection or admission, fees are charged until and including the month when the cancellation was made.

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