



Xetra® Release 16.0

Release Description

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1 Introduction

Deutsche Börse AG is planning to introduce Xetra Release 16.0 on 30 November 2015. This release will be mandatory for the participants of all Xetra markets.

With Xetra Release 16.0, functional and technical enhancements to further increase trading efficiency will be introduced. The major developments and changes that will be implemented with Xetra Release 16.0 are outlined below. Where the changes require amendments of the rules and regulations of the Frankfurter Wertpapierbörse (FWB[®], the Frankfurt Stock Exchange), they are subject to corresponding resolutions of the FWB Exchange Council and approval by the Exchange Supervisory Authority.

With the Volume Discovery Service, Xetra Release 16.0 offers an innovative combination of “dark” and “lit” liquidity. This new service combines the benefits of an iceberg order with those of a midpoint order. In addition to the execution of an iceberg order in the open order book, Volume Discovery offers the possibility to execute it at midpoint in the open order book against other iceberg orders that also use the Volume Discovery Service. For originators of iceberg orders, the usage of this service is optional.

The Volume Discovery Service will increase the execution probability of orders with high volumes. Thereby, Deutsche Börse offers a unique service in Europe which allows quick execution of large orders without disturbing the market.

The Self Match Prevention (SMP) functionality will help Xetra members to prevent unintended crossings. Since crossings are forbidden in some home states of Xetra members, Xetra Release 16.0 will support members to be compliant with such regulatory requirements. A new optional field (CrossID) will be introduced which enables members to prevent the execution of orders and quotes against any other orders and quotes of the same member with the same CrossID. By entering different data in this field, members will have the flexibility to define different rules for individual traders, trader groups or sessions.

The new Quote Request functionality which is going to be introduced with Release 16.0 combines the advantages of OTC trading with those of on-exchange trading. All products tradable at Börse Frankfurt Zertifikate AG can be traded in the Specialist trading model as well as by accepting a price on the basis of a quote request. So far, this functionality has been known only on OTC markets and will now be integrated in the regulated on-exchange Xetra Specialist trading model. Hence, members can enter quote requests which will be answered by the Specialist with a quote dedicated to the member who sent the quote request. This quote will then be tradable for the sender of the quote request.

In addition, Xetra Release 16.0 will implement the existing Designated Sponsor Quote Request functionality for VALUES API on the Enhanced Transaction Solution interface. The Designated Sponsor Quote Request functionality will enable members to request quotes from Designated Sponsors for instruments traded in the Continuous Trading model on Xetra.

With Xetra Release 16.0, settlement processes will be optimized by introducing the internalisation of settlement in addition to the already existing bilateral aggregation for non-CCP trades. By selecting this option, no delivery instructions will be generated for trades where the buy and sell side can be allocated to the same trading member. Delivery as well as processing of corporate actions has to be ensured internally by the trading member itself.

To ease the processing of pending deletions in locked stock scenarios, the System Order ID will be added to the respective response structure in VALUES as well as in the Enhanced Transaction Solution Interface.

Optimization of different Xetra functionalities as well as hardware enhancements will further reduce the latency of Xetra. This applies both to the absolute latency and the variance of latency.

In addition to aforementioned innovations, Xetra Release 16.0 will support the operating system Windows Server 2012 and a mandatory upgrade of the Java Runtime Engine from version 1.7 to version 1.8 for Windows based installation will be made. MISSES and Workstations using the Solaris as operating system will continue to use Java version 1.7.

Xetra Release 16.0 will be a mandatory release without backward compatibility.

2 Functional Enhancements of Xetra Release 16.0

2.1 Volume Discovery Service

Iceberg Orders enjoy a broad usage among the Xetra customers. A certain part of these Iceberg Orders arise from execution strategies which seek to execute larger parent orders. In order to maximize execution probability within Xetra, members enter several orders, often combinations of Iceberg and Xetra Midpoint Orders. To provide customers with an even better service Deutsche Börse will offer the Volume Discovery Service which combines the execution probability of an Iceberg order with that of a Midpoint Order.

The current Iceberg Order is enhanced with the additional possibility to execute the hidden part of the order against other orders of this kind at the midpoint of the Xetra order book. The execution of the overall quantity of the order is still possible in the visible order book. The Xetra system will manage of the respective quantities.

2.1.1 Minimum Execution Quantity

To avoid executions of small numbers of shares at the midpoint which is assumed to be not favorable for traders, the new instrument parameter "Volume Discovery Minimum Execution Quantity (MEQ)" will be introduced. With this parameter the minimum number of shares that has to be executed with any match at the midpoint is defined. Above this minimum any quantity can be executed. If the MEQ is set as e.g. 200 and a respective Iceberg Order is entered with overall quantity 1000 and peak quantity of 100, any quantity between 200 and 900 would be generally executable at the midpoint, since the visible peak is not available for these executions.

Every (partial) execution at the midpoint needs to fulfil the Minimum Execution Quantity criteria, i.e. also in case there is another execution at a later time it has to be at least 200 shares in the given example.

As soon as the (remaining) hidden quantity of such an order falls below the Minimum Execution Quantity the order will be ignored with regards to the Volume Discovery Service. The remaining quantity will still be executable in the visible order book.

In Instruments which have the Minimum Execution Quantity set to zero the Volume Discovery Service is not available.

The "Volume Discovery Minimum Execution Quantity (VolDiscMinExecQty)" is calculated on a daily basis and will be added to the instrument reference data available via Enhanced Broadcast Solution, Common Report Engine and the Xetra Member Section in the Internet.

2.1.2 Parameters for Volume Discovery Orders

To use the new Volume Discovery Service customers need to enter a new optional field together with their Iceberg Order: the "Second Limit". Only if this limit is provided, is an Iceberg Order considered as a Volume Discovery Order, i.e. for matching the hidden quantity at the midpoint.

The "Second Limit" serves as a boundary up to which an execution at midpoint is possible and is not considered for price determination at all. Consequently the "Second Limit" needs to be higher (lower) than the "Limit" of a Volume Discovery Order on the buy (sell) side.

The "Second Limit" can be entered via J-Trader in the field "2nd Limit", using the new field "ordrVolDiscPrc" in VALUES, by entering the "orderVolumeDiscPrice" in the Enhanced Transaction Solution Interface or in FIX Gateway by entering the limit in the "DiscretionOffsetValue" and setting "DiscretionInst" as well as "DiscretionLimitType" to "0".

Beside the "Second Limit" customers need to take care that the hidden quantity of the order, i.e. overall quantity of the Iceberg Order minus the peak quantity, is at least the size of the MEQ defined for the instrument if they want to enter a Volume Discovery Order.

All other fields need to be considered as they are currently for an Iceberg Order:

- Order Type is set to "I" (MaxFloor > 0 in FIX Gateway)
- The overall quantity of the Iceberg Order needs to be bigger than or equal to the Minimum Iceberg Quantity defined for the instrument.
- The peak quantity of the Iceberg Order needs to be bigger than or equal to the Minimum Peak Quantity defined for the instrument.
- The peak quantity needs to be at least 5 percent of the overall quantity of the Iceberg Order.
- Iceberg Orders cannot be entered as "Market", they need to have a "Limit".
- The Validity can be "Good-for-Day", "Good-till-Date" or "Good-till-Cancelled".
- No Trading Restrictions are supported.

Additionally a new Execution Restriction "Good Till Crossing/Auction (GTX)" for Volume Discovery Orders will be introduced which allows the trader to opt for a deletion of the order at the start of any auction or volatility interruption (Vola). This is to avoid that the overall quantity might be shown to the market. If "GTX" is not used the Volume Discovery Order participates with its full size in the auction or volatility interruption and is considered according to its normal limit.

The new execution restriction is only possible together with the validity "Good-for-Day". It can be entered via J-Trader or VALUES by setting the execution restriction to "GTX" and via Enhanced Transaction Solution Interface or FIX Gateway using "TimeInForceCode" = "5".

All parameters (incl. the execution restriction "GTX") of an existing Volume Discovery Order can generally be changed and are subject to the same validations as upon entry. Additionally the following needs to be considered with respect to the price-time-priority of the order:

- The "Second Limit" can be deleted and the Volume Discovery Order is changed to become an Iceberg Order. This is possible without a change in the matching priority of the order but the Execution Restriction "GTX" needs to be deleted if it was previously set for the Volume Discovery Order.
 - Modifying either peak or overall quantity in a way that the hidden quantity falls below the MEQ will only be possible if the trader deletes the "Second Limit" and if applicable the Execution Restriction "GTX".
 - Increasing the peak or the (remaining) overall quantity will lead to a new priority. Reducing peak or (remaining) overall quantity will not cause a priority change.
 - Modifying a Volume Discovery Order whose remaining hidden quantity is below the MEQ in a way that afterwards the hidden quantity is again bigger than MEQ will be handled as entry of a new Volume Discovery Order and will lead to a new priority.
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- Changing the visible Limit will lead to a new priority while changing the "Second Limit" will not.
- An existing Iceberg Order cannot be modified to become a Volume Discovery Order by entering the "Second Limit".
- Extending the Validity will cause a new priority, while reducing the Validity will not.
- Changes to Text, Member Internal Order Number or the Account Type are possible without influencing the matching priority.

The Volume Discovery Service can be provided in instruments with trading model Continuous Trading where Liquidity Interruption is not enabled. For Continuous Trading with Mini Auction the functionality will not be supported.

In RPTTC540 the "Second Limit" as well as the new Execution restriction "Good Till Crossing/Auction (GTX)" will be reflected accordingly. RPTTC550 will show the "Second Limit" for Volume Discovery Orders still valid on the next trading day.

2.1.3 Matching of Volume Discovery Orders

The purpose of the Volume Discovery Order is the concurrent and competing execution possibility of the respective quantities either in the visible part of the central order book or at the midpoint. In cases where simultaneous execution is possible the priority algorithm is outlined below.

2.1.3.1 Priority of the Central Limit Order Book

In the case matching of a Volume Discovery Order would be possible in the central limit order book as well as at the midpoint, the central limit order book always has priority. Hence, incoming Volume Discovery Orders are first checked for (partial) execution in the central order book following the same logic as Iceberg Orders. As soon as every transaction regarding the Volume Discovery Order (or triggered by the Volume Discovery Order) in the visible book was processed, the (remaining) peak is written to the book. After that, as a last step, the execution at the midpoint is evaluated (see Example 1 in 2.1.3.3).

As with the current Iceberg Order, the Volume Discovery Order will be available with its full size for matching in the central order book while only the peak is shown to the market. As soon as a peak is fully executed it is replenished and the hidden quantity is adapted.

Executions at the midpoint do not have any effect on the (remaining) peak already shown to the market but the hidden quantity will be decremented accordingly.

A Volume Discovery Order will take part in the volatility interruption or auction with its full size. If the order was entered with the execution restriction "Good Till Crossing/Auction (GTX)", it will be deleted automatically by the system at the start of an auction or a volatility interruption in Continuous Trading.

2.1.3.2 Matching Volume Discovery Orders at the Midpoint

Matching hidden parts of Volume Discovery Orders at the midpoint is generally possible during the trading phase "TRADE" when best bid/ask are available in the central limit order book and a midpoint can be calculated.

Only the hidden part of a Volume Discovery Order can match at the midpoint. For example, for a newly entered Volume Discovery Order with overall quantity of 1000 and a peak quantity of 200 a maximum of 800 shares could be traded at the midpoint.

Buy (Sell) Volume Discovery Orders are treated as executable if their hidden quantity is equal to or above the Minimum Execution Quantity and the “Second Limit” is higher (lower) than or equal to the midpoint derived from best bid/ask in the central order book. Execution possibilities will be checked upon entry or modification of a Volume Discovery Order (but after a potential matching in the visible book) and as soon as the midpoint in the central order book changes.

Volume Discovery Orders that are executable with regards to their “Second Limit” are sorted according to their price-time-priority in the visible book for each side of the book separately. In the case that matching is possible, there is one buy order with the highest price-time-priority and one sell order with the highest price-time-priority. The execution process is started by determining which of these two orders has the larger hidden quantity. This order is assumed to be “incoming” and is matching the orders on the opposite side of the book according to their price-time-priority taking the Minimum Execution Quantity into account.

After a match at the midpoint only the hidden quantity of the respective order is adapted accordingly. There is no effect on the visible peak in the central order book.

As soon as the remaining hidden quantity of an order falls below the Minimum Execution Quantity, the respective order is no longer considered for Volume Discovery Service.

In case the price of the midpoint match determined in the central order book would trigger a volatility interruption, no match is executed and no volatility interruption is triggered. However, as soon as the last trade price or the last auction price is changes, the execution possibility of Volume Discovery Orders is evaluated again.

Prices and quantities of matches at the midpoint will be published to the market as an update to the Last Midpoint Price, Last Midpoint Quantity and Last Midpoint Time. If the Midpoint order book is supported in parallel to midpoint matching of Volume Discovery Orders both will update the same data fields.

Volume Discovery Orders will not match with orders in the Midpoint book.

2.1.3.3 Matching Examples

Below examples are given for the two main scenarios that should be considered regarding Volume Discovery: the priority of matching in the central limit order book and the matching of Volume Discovery Orders at the midpoint.

Example 1: Priority of matching in the visible part of the Central Limit Order Book

MEQ = 300; Midpoint = 24.0; Not triggered Buy Stop Order 150@M with Stop Limit 23.0; Actual order book:

Visible (Hidden) Buy Qty	2nd	Limit	2nd	Visible (Hidden) Sell Qty
		25.0		50
		24.0		
500		23.0		

100 (300) VO1	25.0	22.0		
200 (600) VO2	24.0	21.0		

An incoming Sell Volume Discovery Order VO3 (Total Quantity = 1000, Peak = 100, Limit = 23.0, 2nd Limit = 22.6) is checked for execution possibilities in the central order book first. Here it can be executed against 500@23.0 on the buy side. The price of 23.0 triggers the Stop Order which is inserted into the order book and immediately matches another 150 of the Volume Discovery Order which leaves 50@23.0 of the peak of the Volume Discovery Order to be written to the book:

Visible (Hidden) Buy Qty	2nd	Limit	2nd	Visible (Hidden) Sell Qty
		25.0		50
		24.0		
		23.0	22.6	VO3 (300) 50
100 (300) VO1	25.0	22.0		
200 (600) VO2	24.0	21.0		

The new midpoint is now calculated as 22.5 and no matching at the midpoint is possible since the second limit of the Sell Volume Discovery Order is higher than the midpoint in the central order book.

Example 2: Matching of Volume Discovery Orders after change of midpoint

MEQ = 300; Midpoint = 24.0; Actual order book:

Visible (Hidden) Buy Qty	2nd	Limit	2nd	Visible (Hidden) Sell Qty
		27.0		50
		26.0	22.8	VO4 (1000) 200
			22.7	VO5 (700) 100
		25.0	23.0	VO3 (1600) 100
		24.0		
900 (900) VO1	23.5	23.0		
150		22.0		
200 (800) VO2	23.7	21.0		
300 (900) VO6	23.5	20.0		

In the current order book situation none of the Volume Discovery Orders can be executed. Now an incoming Sell Limit Order with Quantity 100 and Limit = 24.0 is written to the book.

Visible (Hidden) Buy Qty	2nd	Limit	2nd	Visible (Hidden) Sell Qty
		27.0		50
		26.0	22.8	VO4 (1100) 200
			22.7	VO5 (700) 100
		25.0	23.0	VO3 (1600) 100
		24.0		100
900 (900) VO1	23.5	23.0		
150		22.0		
200 (800) VO2	23.7	21.0		
300 (900) VO6	23.5	20.0		

A new midpoint of 23.5 is calculated and matching at the midpoint is started.

Following the rule described above, the orders are sorted according to their price-time priority on both sides of the book. Matching starts with identifying the Volume Discovery Order with price-time-priority on the bid side and the Volume Discovery Order with price-time-priority on the ask side. Out of these two orders, the one with the biggest hidden quantity is identified.

On the buy side VO1 has the highest priority and on the sell side it is VO3. While VO1 has the biggest overall quantity, VO3 has the higher hidden quantity and hence midpoint matching is started with VO3.

The hidden quantity of VO3 can be fully executed against 900 of VO1 and 700 of VO2. The remaining hidden quantity (100) of VO2 is below the MEQ and is ignored for further matching at the midpoint.

Again the order with the highest price-time priority and the biggest hidden quantity needs to be identified, i.e. VO4. This order is then executed against 900 of VO6. The remaining 200 of VO4 are again not relevant for further matching at the midpoint since they are below the MEQ.

VO5 is not executed at all and is the only Volume Discovery Order that is still available for matching at the midpoint. The resulting book looks like:

Visible (Hidden) Buy Qty	2nd	Limit	2nd	Visible (Hidden) Sell Qty
		27.0		50
		26.0	22.8	VO4 (200) 200
			22.7	VO5 (700) 100
		25.0	23.0	VO3 (0) 100
		24.0		100
900 (0) VO1	23.5	23.0		
150		22.0		
200 (100) VO2	23.7	21.0		
300 (0) VO6	23.5	20.0		

2.1.4 Post Trade Processing

Trades resulting from Volume Discovery Orders can occur with two different trade types depending where they are executed. While executions in the central limit order book are booked and reported as on-exchange trades (trade type “XP”), the trades resulting from matching at the midpoint will be of trade type “XM”, i.e. Midpoint trades.

In CCP eligible instruments executions of one order can be aggregated under one trade number by using order level netting. Since for Volume Discovery Orders the trades out of one order can be of different trade types, the aggregation needs to be done per trade type separately. Therefore executions at the midpoint will be aggregated using one trade number while those executions from the central limit order book are accumulated with a different trade number. Trade modifications (e.g. change of trading account) done for the aggregated position of one trade type will not be transferred automatically to the other accumulated trade.

In non-CCP eligible instruments the trade type will be considered accordingly. Bilateral Aggregation or Settlement Internalisation (also introduced with Xetra 16.0; please see below) can take place as well if configured for the member.

2.2 Self Match Prevention

Since the legal situation in the origin country of several members does not allow crossing at all, neither intended nor unintended crossings, Deutsche Börse will introduce the “Self Match Prevention (SMP)” with Xetra Release 16.0 which will allow members to prevent unintended crossing of their orders and quotes.

With the new functionality “Self Match Prevention (SMP)” participants are able to avoid the execution of an order or quote against other orders or quotes from the same member in the same instrument.

2.2.1 Overview

For the Self Match Prevention functionality a new optional field “CrossID” will be added to all order and quote transactions except for deletions where Self Match Prevention is not relevant.

The “CrossID” is a numeric value (4-bytes) that can be set individually by the members themselves. It can be entered via J-Trader using the field “CrossID” or via VALUES API, Enhanced Transaction Solution Interface or FIX Gateway by sending the field “MatchInstCrossId” with the respective value.

During Continuous Trading (Trading Phase “TRADE”) the Xetra system checks if orders/quotes which are executable against each other are from the same member and are entered with the same “CrossID”. If this is the case the Self Match Prevention Processing is started.

Orders/quotes which become executable against each other during a volatility interruption or a regular auction will not be validated for the SMP criteria.

The entry of a “CrossID” is not supported for Midpoint Orders, Trailing Stop Orders, One-Cancels-Other Orders, Orders-on-Event, Iceberg Orders, Volume Discovery Orders, Hidden Orders or orders with the execution restriction Fill-or-Kill.

In case a Book-or-Cancel, TOP or TOP+ order is entered and immediately canceled since it could match against a visible order or quote, this will not trigger the SMP process even if the incoming order and the sitting order have the same "CrossID" and member ID.

Only Designated Sponsor quotes are allowed with a "CrossID". BEST or Liquidity Manager quotes having a "CrossID" will be rejected.

In Mass Quote requests only one "CrossID" can be submitted for all quotes included.

Per default, Self Match Prevention is switched on for all members. In case SMP is switched off an incoming order or quote containing a "CrossID" will be rejected.

By entering different values in the "CrossID" field, members will have the flexibility to define different rules for individual traders, trader groups or sessions.

A new fee type is introduced in RPTCB042 "Fee Per Executed Order" for orders deleted by Self Match Prevention.

That fact that Self Match Prevention is enabled for an instrument then this will be reflected in the instrument reference data available via Enhanced Broadcast Solution Interface, Common Report Engine or Xetra Member Section.

2.2.2 SMP Process

If an incoming order or quote with a "CrossID" (incoming SMP-Order) is immediately executable it will be checked if a matching order or quote with the same "CrossID" which was submitted by a trader of the same member exists in the order book (sitting SMP-Order).

The incoming SMP-Order will be allowed to match until it hits a sitting SMP-Order, i.e. it can match partially against other orders in the book with a higher priority than the sitting SMP-Order, even against sitting orders of the same member but with different "CrossID".

As soon as the incoming SMP-Order would match against a sitting SMP-Order at a certain price level, the matching process will stop here and the following procedure is triggered:

- If the incoming SMP-Order's (remaining) quantity is equal to the quantity of the first sitting SMP-Order it hits, the incoming order is cancelled and the sitting order gets deleted as well.
 - If the incoming SMP-Order's (remaining) quantity is smaller than the quantity of the first sitting SMP-Order it hits, then the incoming SMP-Order will be cancelled. The quantity of the sitting SMP-Order will be decremented by the incoming order's quantity.
 - If the incoming SMP-Order's quantity relevant for the price level is greater than the quantity of the first sitting SMP-Order it hits, the incoming order's (remaining) quantity will be decremented by the sitting SMP-Order's quantity and the sitting order is deleted. The incoming SMP-Order's then remaining quantity will match against other executable sitting orders until there are no further executable orders on this price level, until it is fully executed or until it hits another sitting SMP-Order on this price level. In the latter case the described steps will be repeated. In case there is still quantity left from the incoming SMP-Order after matching on the respective price level has completed, it will not match further price levels but will be cancelled.
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The trader is informed about the deletion or quantity reduction of his order or quote accordingly. Via Enhanced Transaction Solution Interface the new transaction reason "SMP – Self Match Prevention" is introduced in the order status notification (trnReasonCode). In FIX Gateway this is reflected in new tag "Crossed" (1 = Cross_Rejected) of the execution report.

The deleted quantity out of a triggered Self Match Prevention procedure is reported to the market together with the respective limit via Enhanced Broadcast Solution.

2.2.3 Example

Initial order book with orders sorted according to their price-visibility-time priority looks as follows:

Buy Qty	(Mbr/CrossID)	Limit	(Mbr/CrossID)	Qty	Sell
		51	(XYZFR/5566)	100	S2
		50		50	S1
B1	50	49			
B2	20 (XYZFR/9987)	48			
B3	500				
B4	10 (ABCFR/1234)				
B5	50 (ABCFR/9987)	47			
B6	5				
B7	10				
B8	40 (ABCFR/9987)	46			

A sell order S3 with quantity 650 and limit 46 from member ABCFR with CrossID "9987" is entered into the order book.

S3 matches according to price-visibility-time priority first with B1 (50@49), then with B2 (20@48) which has the same CrossID but was entered by a different member and afterwards with B3 (500@48).

After B4 (10@47) is matched which was entered by a trader of ABCFR as well but with a different CrossID, a quantity of 70 shares remains from S3.

The remaining quantity of the incoming SMP-Order now hits the sitting SMP-Order B5 (50@47) and the conditions for Self Match Prevention (same member, same CrossID) are fulfilled. As the (remaining) quantity of the incoming SMP-Order is bigger, the sitting order is deleted and the quantity of the incoming order is decremented accordingly to 20.

S3 is now checked for executions on the same price level where SMP was triggered and B6 (5@47) gets executed. The remaining quantity of S3 (15@46) is deleted afterwards since no further match on the same price level is possible.

The sitting buy orders B7 and B8 stay unchanged:

Buy Qty	(Mbr/CrossID)	Limit	(Mbr/CrossID)	Qty	Sell
		51	(XYZFR/5566)	100	S1
		50		50	S2
		49			
		48			
		47			
B7	10				
B8	40 (ABCFR/9987)	46			

2.3 Quote Request Driven Trading in Continuous Auction with Specialist

With Xetra Release 16.0 members can enter quote requests which will in turn be answered by the Specialist with a dedicated quote. The quote will then be tradable for the sender of the quote request. This service is going to be offered for all instruments tradable at Börse Frankfurt Zertifikate AG in trading model Continuous Auction with Specialist¹ but only via the Enhanced Transaction Solution Interface and FIX Gateway.

To receive the Specialist's reply, customers need to subscribe to the new Specialist Quote Request Reply Notification stream "Q" in the Enhanced Transaction Solution Interface by setting the "subsSpecQuoteReqReplyEventFlag" to "1" during logon. FIX customers will receive the response of the Specialist via the new message "Quote (S)".

Customers must include when sending their quote requests with at least instrument and "QuoteID" (FIX Gateway "QuoteReqID") to the Specialist. The "QuoteID" must be numeric and unique per instrument and member, i.e. it is not allowed for a member to send two or more quote requests with the same "QuoteID" in an instrument throughout the trading day. Such quote requests will be rejected.

The Specialist is obliged to send an answer to the requesting member session using the same "QuoteID" as a reference. The Specialist may either answer the request with a quote (single or double sided) or with an empty quote and a corresponding rejection reason:

"A"	Requested size too small
"B"	Requested size too big
"I"	No valid quote from issuer
"N"	Instrument not tradable
"O"	Other
"S"	Sold out
"T"	Trading restriction

¹ Instruments having Special Auction or Single Auction flag set or are traded In Subscription are not in scope of this functionality.

Specialists will use the new VALUES request “Xetra Specialist Enter Quote Request Reply” to answer the respective quote requests.

In case the Specialist does not answer in due time Xetra will close the open quote request with rejection reason “X”.

After the quote requestor has received the answer of the Specialist, the quote requestor should enter an order within the respective time frame, again using the “QuoteID” as a reference. Orders with the respective “QuoteID” entered after the time frame has elapsed will be rejected.

Orders with a “QuoteID” entered within the respective time frame are written to the order book and can be executed by the Specialist in a regular match. The Specialist will then freeze the order book and enter a matching quote. If the matching quote is such as, that an order with “QuoteID” would be executed only partially, the respective quote is rejected and the freeze phase is not terminated. Orders with a “QuoteID” will always need to be executed fully or not at all.

In case the Specialist does not execute the order with a “QuoteID” within a dedicated time frame the order is deleted automatically by the Xetra system even if the instrument is in phase “Freeze”. A deletion message is sent to the respective member session with the deletion reason “EXP – Expired”.

For the “QuoteID” the field “quoteld” is used in the Enhanced Transaction Solution Interface in all affected message flows while in FIX Gateway the already existing tag “QuoteReqID” is utilized in the Quote Request and a new tag “QuoteID” will be used in all other cases.

Although the functionality is only offered to members via Enhanced Transaction Solution Interface or FIX Gateway the “QuoteID” is added to the respective order inquiries and broadcasts in VALUES API as well as displayed in the Own Order Overview window of the J-Trader GUI. The Specialist will receive the quote request as well as orders entered with “QuoteID” in the response to the VALUES request “Xetra Inquire Specialist Order” and in the Specialist Specific Information Broadcast.

Orders or quotes entered with a “QuoteID” where no corresponding quote request exists will be rejected. Additionally a “QuoteID” can only be used for the entry of one order.

Modifications of orders with “QuoteID” will not be supported.

2.4 Designated Sponsor Quote Request Functionality Enhancement

In addition to the new Specialist Quote Request functionality, Xetra Release 16.0 will implement the existing Designated Sponsor Quote Request functionality for VALUES API on the Enhanced Transaction Solution interface.

Members will be able to request a quote from Designated Sponsors for instruments traded in the Continuous Trading model on Xetra. With Release 16.0 all members (including a Designated Sponsor itself) can send this request not only via VALUES and J-Trader but also using the Enter Trading Interest request in the Enhanced Transaction Solution Interface.

A new “DS/LM Quote Request Notification“ stream “E” will be introduced in Enhanced Transaction Solution Interface via which the Designated Sponsor will be informed about the existence of a quote request in one of their supported instruments. The Designated Sponsor will receive the instrument, the member ID of the sender of the quote request, the quantity and the side. Designated Sponsors can subscribe to the new stream by setting the “subsDsLmQuoteReqEventFlag” during logon to “1”.

2.5 Settlement Internalisation

With Xetra Release 16.0, settlement processes will be optimised by introducing the internalisation of settlement in addition to the already existing Bilateral Aggregation for non-CCP trades. For trades, for which the buy and sell side can be allocated to the same trading member, no delivery instructions will be generated for these cross trades if the member is set up accordingly.

With Xetra Release 16.0 members can choose to have Settlement Internalisation activated for their trading accounts "Agent" and/or "Proprietary". Either "Settlement Internalisation only (I)", "Settlement Internalisation & Bilateral Aggregation (B)", "Bilateral Aggregation only (A)" or "No Aggregation (N)" can be selected for member setup.

In case Settlement Internalisation only or together with Bilateral Aggregation is used, the member also has to determine which of its respective settlement accounts should be enabled accordingly.

Settlement Internalisation is supported in non-CCP eligible instruments having the Bilateral Aggregation Flag set to "Y".

In case an on-exchange or OTC trade is conducted in such an instrument, having the same member on both sides of the trade with trading accounts and respective settlement accounts activated for Settlement Internalisation, the Netting Type of the trade is set to "I". For such trades settlement instructions will neither be generated nor transferred to the custodian. Delivery as well as processing of corporate actions have to be ensured internally by the trading member or its settlement institute respectively.

Report RPTTC810 "Daily Trade Confirmation" will reflect the Netting Type "I" accordingly.

The modification of the account type of a trade with netting type "I" will only be possible if the settings on the origin and the target account will allow it. If the member has on his "Agent" and "Proprietary" account each Settlement Internalisation enabled, changing the account type will be possible. If on the target account Settlement Internalisation is not configured, the respective modification will be rejected.

Trade modifications for trades with netting type "A" (Bilateral Aggregation) to an account where the member has enabled Settlement Internalisation only ("I") will not be supported whereas it will be possible if the setting on the target account is Settlement Internalisation & Bilateral Aggregation ("B").

If the trade has no netting (netting type = blank) and the modification to an account is intended where Settlement Internalisation is enabled, this change will be allowed. After the modification the trade is not internalised, regardless of the netting settings on the target account.

Following table gives an overview of the various possibilities of account type modifications for different settings on member level and Netting Type of the trade:

Netting type of trade	Setting of origin account	Setting of target account	Modification allowed (Yes/No)
I	I or B	I or B	Yes
I	I or B	A or N	No
A	B or A	B or A	Yes
A	B or A	I or N	No
“ “	I, B, A or N	I, B, A or N	Yes

Table 1: Account type modification possibilities

2.6 System Order Number in Delete Order Response

When an order request for deletion is sent to the backend during a locked stock phase, the pending delete order receives a new order number. This new order number is currently not returned in the respective response. With Xetra Release 16.0 the “systemOrderID” is added to the Delete Order Response in Enhanced Transaction Solution Interface and the respective VALUES response structure is enhanced with the “ordrNo” field.

3 Additional Xetra Interface Changes

In addition to the functional changes to the Xetra system described above and their effect on the customer interfaces, a few technical changes and interface extensions are planned with Xetra 16.0.

3.1 Enhanced Transaction Solution Interface

No further changes in addition to the impact from above described functional changes are currently planned. More details on all the enhancements can be found in the document “Enhanced Transaction Solution – Interface Specification Modification Announcement”.

3.2 FIX Gateway

In the following chapters the major changes and enhancements to the Xetra FIX Gateway done in addition to the impact from the functional changes outlined above can be found. More details can be taken from the document “Xetra FIX Gateway - FIX 4.2 and 4.4 Modification Announcement”.

3.2.1 TransBkdTime introduction in OTC Broadcast

With Xetra 16.0 the tag “TransBkdTime” will be introduced into the OTC Broadcast. The field then indicates the date and time the OTC trade was made as specified by the submitter.

3.2.2 New Version of FIXimate

A new version of FIXimate will be delivered with the Release of Xetra 16.0. The new version will contain the changes for Xetra 16.0 and a new graphical user interface.

3.3 Enhanced Broadcast Solution Interface

The most important changes to the Enhanced Broadcast Solution Interface in addition to the impact from the functional changes outlined above are described in this chapter. Further changes and more details on all the enhancements can be found in the document “Enhanced Broadcast Solution – Interface Specification Modification Announcement”.

3.3.1 Packet Header

TID will be changed to 34.

3.4 Xetra Market Data Interface

No changes are currently planned. The final version for “Xetra Market Data Interface” from Xetra Release 15.0 will remain valid for Xetra Release 16.0 accordingly.

3.5 Common Report Engine

With Xetra Release 16.0 no changes to the report transfers to the Common Report Engine (CRE) are planned.

4 Technical Implications

Xetra Release 16.0 will be a mandatory release without backward compatibility.

Please be aware that all members must install the (update) kits on their existing and new MISS servers or workstations. By means of these kits, the Xetra Release 16.0 software with the latest version of the Xetra J-Trader GUI will be installed.

A mandatory upgrade of the Java Runtime Environment from version 1.7 to version 1.8 will be made for all Windows operating systems. For Solaris the Java version 1.7 will remain valid with the release.

For Xetra Release 16.0, installation of GATE 3.5 is required, as has been for Xetra Release 15.0.

As a new operating system Xetra will support Windows 2012 Server SP 2 for MISS installations with Release 16.0.

Existing own or third-party applications using VALUES API, Enhanced Transaction Solution interface, FIX Gateway or Enhanced Broadcast Solution Interface have to be adjusted.
