Block Trading Solutions

October 2023

BLOCK TRADING SOLUTIONS

Midpoint Order Book	Request for Quote (RFQ)	Book of Block Trade (BBT)	Rules for all solutions

• **Limit order that will always be executed at the central book´s midpoint price.**	• **Functionality to request quotes that allows more efficiency to the price formation of large size lots.**
	• **Automatic matching**
	• **Orders may trade with premium or discount on the price of the central limit order book**
		• **Separate book for continuous block trading lots. Orders may trade with premium or discount on the price of the central limit order book**	• Trading in **multiples of the minimum size** disclosed by CVM (available [here](#))
			   ➢ **Daily calculation** of the minimum size in terms of **number of shares** based on the closing price of the previous day
			   ➢ It will be available in an existing tag in **Market Data** (1231 – MinLotSize)
			
			• **New instrument symbol**
			
			• **Orders will not be published** on Market Data, **only trades** and with immediate disclosure
			
			• **No interaction with the central limit order book**
			
			• Initially, the solutions will be available to **stocks**; later, for **BDRs and Units**

Execution Criteria

All three solutions will have Price-time Priority as the execution criteria.

IMPORTANT: The solutions are subject to prior approval by CVM.

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Book of Block Trade (BBT)

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MIDPOINT ORDER BOOK

Hidden limit order with a price determined by the **average of the best bid and best sell offer in the central limit order book**, **limited by a price** defined by the participant, with a **minimum quantity size.** This type of order only interacts with orders of the same type.

General Rules

- Midpoint is a new type of order integrated to the PUMA Trading System, but does not interact with the central limit order book
- Orders will not be disclosed on Market Data, only trades and with immediate disclosure
- The indication of available or unavailable orders for a particular instrument is published on the Market Data news channel
- Orders and Trades will be available on Drop Copy
- Negotiations on Midpoint will occur in a new instrument symbol, ending with "M" (ex. XXXXXM)
- If the Midpoint price exceeds two decimal places, the execution will be divided equally into prices rounded up and rounded down
- If the limit price is set out of the Midpoint market price, there will be no execution
- Midpoint will not be available during auctions or in case of no spread of the underlying instrument in the central limit order book
- Midpoint allows partial execution, respecting the multiple of the minimum block size. It is not possible to specify a minimum quantity for execution
- The matching will occur following the Price-time Priority execution criteria (1st Price > 2nd Time)

Examples of how Midpoint works (1/2)

1 MIDPOINT Book – Registration of orders

Clients send Midpoint orders for **XXXXM**, with a limit price and a quantity in multiples of the minimum instrument size

Hidden Midpoint Book

	BUY			SELL			
CC	Qty	Price Limit	Bid	Ask	Price Limit	Qty	CV
B	300k	21,00	Midpoint	Midpoint	19,89	100K	A
				Midpoint	19,91	200K	B

* The limit price is not considered to order the book

2 Message on MD News

Message indicating active order for **XXXXM** is published on the Market Data news channel

"[XXXXM] Midpoint order available on the order book"

The message will only be disclosed on the news when there is an active Midpoint order for a particular instrument, or none

3 Central Book – Average Price Calculation

Midpoint verifies the average bid/ask price of instrument **XXXX** on the central limit order book

Central Book

Bid	Ask
20,02	20,04

Average Price (Midpoint): **20,03**

4 Trade Execution and Post – Trade Transparency

Since the limit price is within Midpoint price, the following trades are executed following **Price-time Priority**:

Negócios - Midpoint

CC	CV	Qty	Price
B	A	100k	20,03
B	B	200k	20,03

Post-trade Transparency Trades are disclosed shortly after execution

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MIDPOINT ORDER BOOK

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Examples of how Midpoint works (2/2)

1 MIDPOINT Book – Registration of orders

Clients send Midpoint orders for **XXXXM**, with a limit price and a quantity in multiples of the minimum instrument size

Hidden Midpoint Book

	BUY				SELL		
CC	Qty	Price Limit	Bid	Ask	Price Limit	Qty	CV
B	400k	27,44	Midpoint	Midpoint	27,39	400K	C

* The limit price is not considered to order the book

2 Message on MD News

Message indicating active order for **XXXXM** is published on the Market Data news channel

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The message will only be disclosed on the news when there is an active Midpoint order for a particular instrument, or none

3 Central Book – Average Price Calculation

Midpoint verifies the average bid/ask price of instrument **XXXX** on the central limit order book

Central Book

Bid	Ask
27,42	27,45

Average Price (Midpoint): **27,435**

4 Trade Execution and Post – Trade Transparency

Since the Midpoint price exceeds **two decimal places**, 2 trades will be generated:

Negócios - Midpoint

CC	CV	Qty	Price
B	C	200k	27,43
B	C	200k	27,44

Post-trade Transparency
Trades are disclosed shortly after execution

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BLOCK TRADING SOLUTIONS

Midpoint Order Book	Request for Quote (RFQ)	Book of Block Trade (BBT)
• Limit order that will always be executed at the central book's midpoint price.	• **Functionality to request quotes that allows more efficiency to the price formation of large size lots.** • **Automatic matching** • **Orders may trade with premium or discount on the price of the central limit order book**	• Separate book for continuous block trading lots. Orders may trade with premium or discount on the price of the central limit order book

Execution Criteria

All three solutions will have Price-time Priority as the execution criteria.

Rules for all solutions

- Trading in **multiples of the minimum size** disclosed by CVM (available [here](#))
  - ➤ **Daily calculation** of the minimum size in terms of **number of shares** based on the closing price of the previous day
  - ➤ It will be available in an existing tag in **Market Data** (1231 – MinLotSize)

- **New instrument symbol**

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RFQ

Solution that allows request for quotes to buy or sell a chosen security, aiming to provide more efficiency to the price discovery process.

Request

1

Requester 1

Requester submits a request for quote to the market

Filled information::
[creation of a request for quote]

Side: Buy
Security: XXXX3R
Total quantity: 1MM
Minimum quantity: 100k[1]
Price limit: 60,00
Broker: A
Quote Duration: 00:03:00

RFQ will have a minimum accepted quantity size

Negotiations on RFQ will occur in a new instrument symbol, ending with "R" (Ex. XXXXXR)

[1]The client can define the minimum size to execute a trade as long as it complies to the minimum block trade size

Notification

2

A notification about the request for quote is sent to the market

Only the information below will be displayed in the Market Data news channel:

Security	Quote Duration
XXXX3R	00:03:00

Information about the security and quote duration will be disclosed, further information will only be disclosed if authorized by the requester

There is a time limit to respond the request

Quotes

3

Responders 2, 3 and 4

Responders send quotes within time.

BUY			
Responder	**CC**	**Qty**	**Pre**
2	A	200k	59,80
3	B	100k	57,95
4	A	100k	57,90

SELL			
Responder	**CV**	**Qty**	**Pre**
2	B	700k	59,60
3	A	300k	59,60

Requesters and responders will not access the quotes

Request and responses can be modified and canceled before quote duration expires

Orders may trade with premium or discount, respecting specific tunnels

Matching

4

Automatic Matching

The following deals were generated:

CC	CV	Qty	Pre
A	B	700k	59,60

CC	CV	Qty	Pre
A	A	300k	59,60

The matching will occur following the Price-time Priority criteria.

The benefit of the price is given to the requester

Confirmation

5

Confirmation of Transaction Registration in the PUMA Trading System
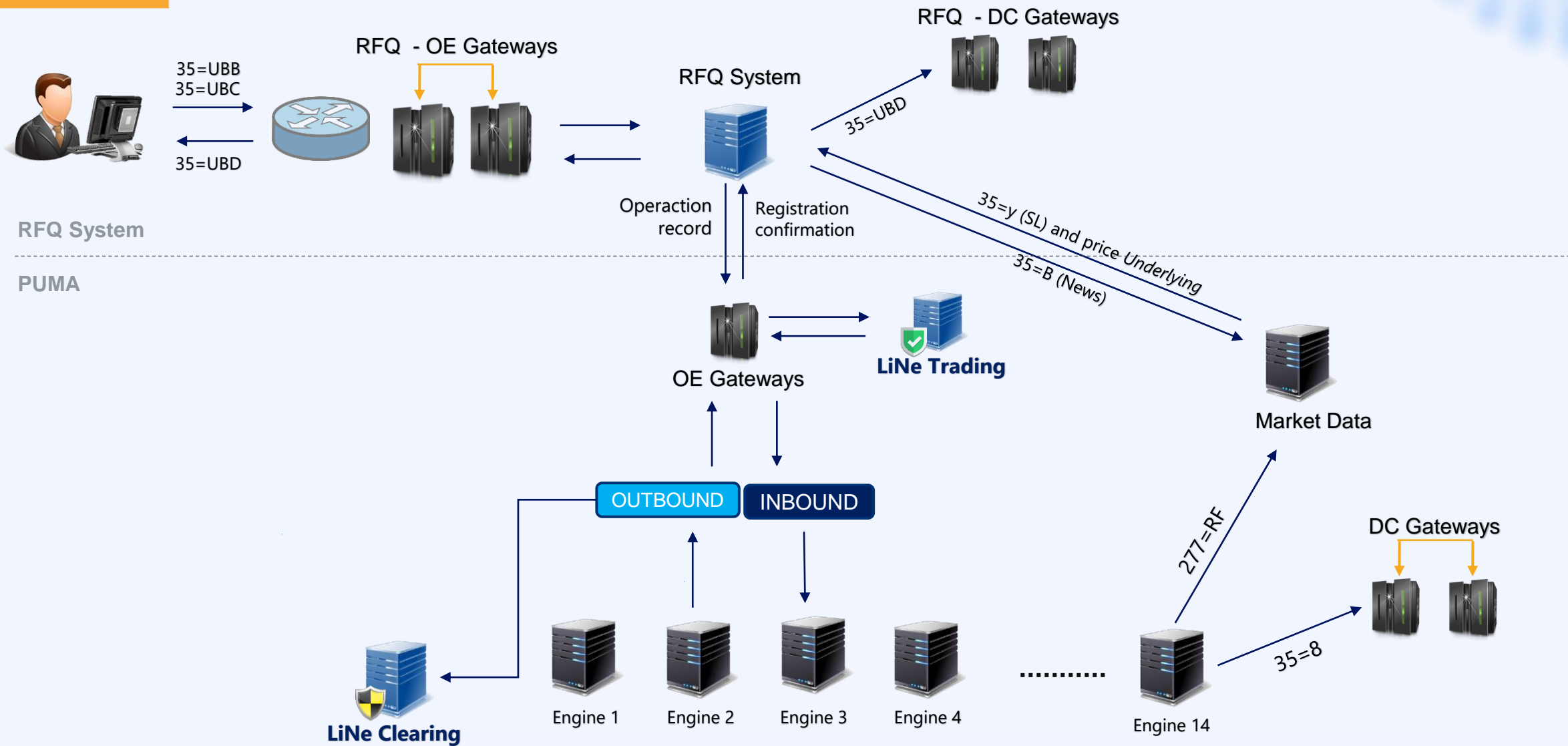
Post Transparency

6

Post-trade Transparency (immediately after matching)

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ARCHETECTURE- Overview

RFQ - OE Gateways

RFQ - DC Gateways

RFQ System

35=UBB
35=UBC

35=UBD

35=UBD

RFQ System

Operaction record

Registration confirmation

35=y (SL) and price Underlying

35=B (News)

PUMA

OE Gateways

LiNe Trading

Market Data

OUTBOUND   INBOUND

277=RF

DC Gateways

35=8

LiNe Clearing

Engine 1   Engine 2   Engine 3   Engine 4   ....   Engine 14

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Midpoint Order Book

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Book of Block Trade (BBT)

Specific book for continuous block trading. It will be allowed a premium or discount for the trades, in relation to the central book.

General Rules

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- Trading through existing offers (Limit, FAK (Fill and Kill) and FOK (Fill or Kill))
- Orders will not be disclosed on Market Data, only trades and with immediate disclosure
- The indication of available or unavailable orders for a particular instrument is published on the Market Data news channel
- Orders and Trades will be available on Drop Copy
- Prices can have a premium or discount, respecting specific tunnels that use the price of the last trade in the central book as a reference
- Negotiations on BBT will occur in a new instrument symbol, ending with "Q" (ex. XXXXXQ)
- BBT allows partial execution, respecting the multiple of the minimum block size. It is not possible to specify a minimum quantity for execution
- The matching will occur following the Price-time Priority execution criteria (1st Price > 2nd Time)

Examples of how BBT works (1/2)

1 BBT Book – Registration of orders

Clients send orders for **XXXXQ** in the BBT book, in a quantity that is multiple of the minimum instrument size

Hidden book - BBT

CC	Purchase Time	Price	Qty Purchase	Qty Sale	Price	Sale Time	CV
A	10:01:00	R$ 18,28	200.000	100.000	R$ 18,28	10:00:00	B
B	10:02:05	R$ 18,25	200.000	100.000	R$ 18,28	10:01:02	A

2 Message on MD News

Message indicating active order for **XXXXQ** is published on the Market Data News channel

"[XXXXQ] BBT order available on the order book"

The message will only be disclosed on the news when there is an active order for a particular instrument on the book of BBT, or none

3 Trade Execution and Post – Trade Transparency

Trades are executed following the **Price-time Priority** and disclosed on the Market Data

Business *Book of Block Trade*

CC	CV	Price	Qty
A	B	R$ 18,28	100.000
A	A	R$ 18,28	100.000

Post-trade Transparency
Trades disclosed shortly after execution

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- The matching will occur following the Price-time Priority execution criteria (1st Price > 2nd Time)

Examples of how BBT works (2/2)

1 BBT Book – Registration of orders

Clients send orders for **XXXXQ** in the BBT book, in a quantity that is multiple of the minimum instrument size

Hidden book - BBT

CC	Purchase Time	Price	Qty Purchase	Qty Sale	Price	Sale Time	CV
A	15:05:00	R$ 15,25	100.000	100.000	R$ 15,00	15:03:00	B
				100.000	R$ 15,03	15:05:00	A

2 Message on MD News

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"[XXXXQ] BBT order available on the order book"

The message will only be disclosed on the news when there is an active order for a particular instrument on the book of BBT, or none

3 Trade Execution and Post – Trade Transparency

Trades are executed at the passive order price, following **Price-time Priority**, and disclosed on Market Data

Business *Book of Block Trade*

CC	CV	Price	Qty
A	B	R$ 15,00	100.000

⬇

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BLOCK TRADING SOLUTIONS | Summary of features (1/2)

Characteristics	Midpoint Order Book	Request for Quote (RFQ)	Book of Block Trade (BBT)
Instrument	**Suffix "M"** (ex. XXXXX<u>M</u>), with the same ISIN as the underlying asset. It will be published on BVBG.028.	**Suffix "R"** (ex. XXXX<u>R</u>), with the same ISIN as the underlying asset. It will be published on BVBG.028.	**Suffix "Q"** (ex. XXXX<u>Q</u>), with the same ISIN as the underlying asset. It will be published on BVBG.028.
Order type	**Midpoint Limit Order**	**RFQ's request and response**	**Orders Limit, FAK and FOK**
Connection	**PUMA**	**RFQ System** – (requires new OE session)	**PUMA**
Price of the trade	**Midpoint** of the central order book ➢ If the Midpoint exceeds two decimal places, the execution will be divided equally between prices rounded up and down	Prices can have **premium/discount** in relation to the central book, respecting **specific tunnels** based on the price of the central book as a reference	Prices can have **premium/discount** in relation to the central book, respecting **specific tunnels** based on the price of the central book as a reference
Pre trade	**Hidden book**: orders are not disclosed ➢ Indication of active order for the instrument is disclosed via **News** (35=B) on Market Data	**Hidden book**: orders are not disclosed ➢ Quote disclosed via **News** (35=B) on Market Data, by default with instrument and time request	**Hidden book**: orders are not disclosed ➢ Indication of active order for the instrument is disclosed via **News** (35=B) on Market Data
Post trade	**Immediate disclosure** of the trade on **Market Data,** with a separate ticker	**Immediate disclosure** of the trade on **Market Data,** with a separate ticker	**Immediate disclosure** of the trade on **Market Data,** with a separate ticker
Matching criteria	**Price-time Priority**	**Price-time Priority**	**Price-time Priority**
Drop Copy	**Orders** and **Trades**	Only **trades**	**Orders** and **Trades**
Instrument state	Respects the states of the **underlying asset**	Respects the states of **block trading specific instrument**	Respects the states of **block trading specific instrument**

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Characteristics	Midpoint Order Book	Request for Quote (RFQ)	Book of Block Trade (BBT)
Indexes	Instruments are **not part of indexes** and block trading volumes will **not affect the tradability ratio**	Instruments are **not part of indexes** and block trading volumes will **not affect the tradability ratio**	Instruments are **not part of indexes** and block trading volumes will **not affect the tradability ratio**
Price statistics	**Specific** for block trading instruments ➢ Prices of the day will be published on **BVBG.086** for the block instrument, but the **closing** price will be a **replication** of the closing price of the **underlying asset**	**Specific** for block trading instruments ➢ Prices of the day will be published on **BVBG.086** for the block instrument, but the **closing** price will be a **replication** of the closing price of the **underlying asset**	**Specific** for block trading instruments ➢ Prices of the day will be published on **BVBG.086** for the block instrument, but the **closing** price will be a **replication** of the closing price of the **underlying asset**
Volume statistics	**Specific** for block trading instruments ➢ Block trading volumes will **not affect** the volume of the underlying asset	**Specific** for block trading instruments ➢ Block trading volumes will **not affect** the volume of the underlying asset	**Specific** for block trading instruments ➢ Block trading volumes will **not affect** the volume of the underlying asset
Certification	**Requires** certification with B3	**Requires** certification with B3	**Does not require** certification with B3

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BLOCK TRADING SOLUTIONS | Technical details

New Fields, Domains and Messages for Block Trading Solutions

Message/File	Field	Midpoint Order Book	Request for Quote (RFQ)	Book of Block Trade (BBT)
Execution Report (35=8)	1094 (PegPriceType) [new field]	2 (MidPricePeg)	n/a	n/a
	40 (OrdType)	'P' (Pegged)	n/a	n/a
	1115 (OrderCategory)	'E' (Result of Midpoint)	n/a	'F' (Result of BBT (Book of Block Trade))
	35551 (ExternalRFQIndicator) [new field]	n/a	'Y' or 'N'	n/a
Market Data - Incremental (35=X)	277 (TradeCondition)	'MP' (Midpoint Trade)	'RF' (RFQ)	'PT'
Market Data - Security List (35=y)	762 (SecuritySubtype)	1022 – Midpoint	1024 - Request for Quote (RFQ)	1023 - Block Book Trade (BBT)
Market Data - Security List (35=y)	1093 (LotType)	3 - Block Lot	3 - Block Lot	3 - Block Lot
BVBG.028	Market	21 (BLOCK LOT)	21 (BLOCK LOT)	21 (BLOCK LOT)
Quotation Request (35=UBB) [new message]	See RFQ System dictionary here (section: attachments)	n/a	See RFQ System dictionary here (section: attachments)	n/a
Response to requests (35=UBC) [new message]				
Systemic response to UBB and UBC message (similar to Execution Report) (35=UBD) [new message]				

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[B]³

Thanks!