Options In-Person Deep Dive

CAT NMS, LLC
7/16/19

Agenda

- Options Implementation Timelines

- Key Changes to IM Tech Spec v2.0

- Options workflows and CAT reporting responsibilities in phases 2b and 2d
  - Prior and Next Unlinked flags
  - Combined Orders
  - Response to Auctions

- OSI Symbology List

- Registration Reminder

- FDID

Implementation Dates – 2b Large Firms

Phase		Event	Date	Regulatory Requirement
2b Options	Phase 2b: File Submission & Data Integrity	**Industry Testing – File Submission & Data Integrity** Start of submission of data by IMs into test environment: Feedback on data integrity checks.	December 16, 2019	No mandated participation; However, IMs will be required to submit a file successfully to test prior to being given access to Prod
		File Submission and Data Integrity Mandatory production submission. Only data integrity checks performed.	May 18, 2020	IMs will be required to submit all Phase 2b data everyday by 8 am T+1 and correct all rejected data by 8 am on T+3
	Phase 2b: Intra-Firm Linkage	**Industry Testing – Intra-Firm Linkage** Testing submission: Feedback on intra-firm linkage	April 2020	Test requirements still under discussion
		Intra-firm Linkage – Go Live Mandatory production submission. Intra-firm linkage checks added.	August 2020	IMs must correct all Intra-firm linkage errors by 8 am on T+3
	Phase 2b: IM-to-IM Linkage (Inter-Firm Linkage)	**Industry Testing – IM-to-IM Linkage** Testing submission: Feedback on IM-to-IM linkage	July 2020	Coordinated industry testing – specific plans in development
		IM-to-IM Linkage – Go Live Mandatory production submission. IM-to-IM linkage checks added.	December 2020	IMs must correct all IM to IM linkage errors by 8 am on T+3
	Phase 2b: Exchange Linkage	**Industry Testing – Exchange Linkage** Testing submission: Feedback on exchange linkage	September 2020	Coordinated industry testing – specific plans in development
		Exchange Linkage – Go Live Mandatory production submission. Exchange linkage checks added. All 2b functionality live in production.	December 2020	IMs must correct all Exchange linkage errors by 8 am on T+3

Implementation Dates
Small Firms, 2d and Customer and Account Information

Phase	Firm Size	Final Technical Specifications Publish Date	Test Environment	Production Environment
2b	Small Firms (total capitalization of less than $500,000)	April 29, 2019	December 2019 with full implementation in September 2020	December 2021
2d	Large Firms	June 2020	June 2021	December 2021
	Small Firms (total capitalization of less than $500,000)	June 2020	June 2021	December 2021
Customer and Account Information	Large Firms	January 2021	January 2022	July 2022
	Small Firms (total capitalization of less than $500,000)	January 2021	January 2022	July 2022

Scope Definition of 2b (1/2)

- In Phase 2b, Industry Members are required to report CAT Industry Member Data related to Eligible Securities that are listed options and meet the definition of Simple Electronic Option Orders, excluding Electronic Paired Option Orders.

- Simple Electronic Option Orders mean orders to buy or sell a single option that are not related to or dependent on any other transaction for pricing or timing of execution that are either received **<u>or</u>** routed electronically by an Industry Member CAT Reporter.

  - Electronic receipt of an order is defined as the initial receipt of an order by an Industry Member in electronic form in standard format directly into an order handling or execution system.

  - Electronic routing of an order is the routing of an order via electronic medium in standard format from one Industry Member's order handling or execution system to an exchange or another Industry Member.

Scope Definition of 2b (2/2)

- Electronic Paired Option Orders mean electronic option orders that contain both the buy and sell side that are routed to another Industry Member or exchange for crossing and/or price improvement as a single transaction on an exchange.

- Electronic Paired Option Orders are excluded from Phase 2b and are not reportable until Phase 2d.

Changes to Options Events in IM Spec V2.0 (1/2)

- **OriginCode**
  - "originCode" field was removed from all Option Event Types

- **Originator**
  - "originator" field was removed on all Options New Order Event Types

- **AffiliateFlag**
  - "affiliateFlag" field was added to both Option New Order and Option Order Accept

- **AccountHolderType**
  - "accountHolderType" field was added to Option New Order Event
  - Foreign was added as a value in "accountHolderType"
  - "AccountHolderType" values for both equities and options are as follows:

  - A – Institutional
  - V – Firm Agency Average Price
  - E – Employee
  - I – Individual
  - O – Market Making

  - P – Other Proprietary
  - X – Error Account
  - F – Foreign: A non-broker-dealer foreign affiliate or non-CAT Reporter foreign broker-dealer

Changes to Options Events in IM Spec V2.0 (2/2)

- **ExchOriginCode**
  - "exchOriginCode" field only exists on the MOOR event
  - Is conditionally required when the destination is an exchange
  - The field is a text value - no predefined set of values in CAT spec
  - The field should be the value transmitted to exchange

- **Prior/Next Unlinked Fields added to Options Order Supplement Event (MONOS)**
  - Allows for population of prior and next unlinked fields on an option order supplement event if value is not known at time original event is created

Options Workflows

Phase 2b Reportable Electronic Workflows (1/2)

Prop Order Flow
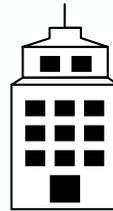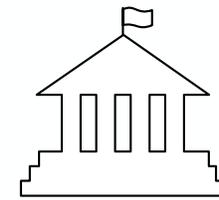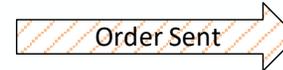
BD → Order Sent → Exchange

Customer Flow
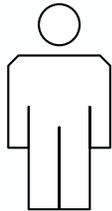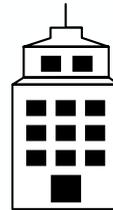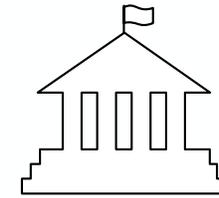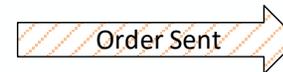
Non-BD Customer → Electronic Order → BD → Order Sent → Exchange

BD Client Flow
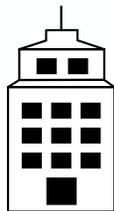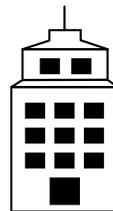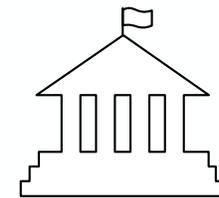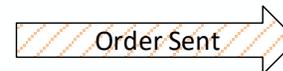
BD Client → Electronic Order → BD → Order Sent → Exchange

Phase 2b Reportable Electronic Workflows (2/2)

BD Wholesaler

Non-BD Customer → Electronic Order → BD1 → Electronic Order → BD2 → Order Sent → Exchange

Multiple Intermediaries

Non-BD Customer → Electronic Order → BD1 → Electronic Order → BD2 ••• BDN → Order Sent → Exchange
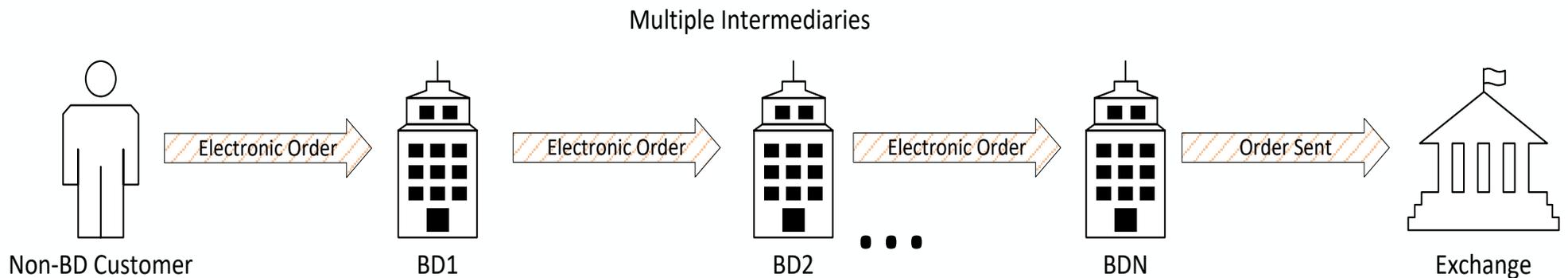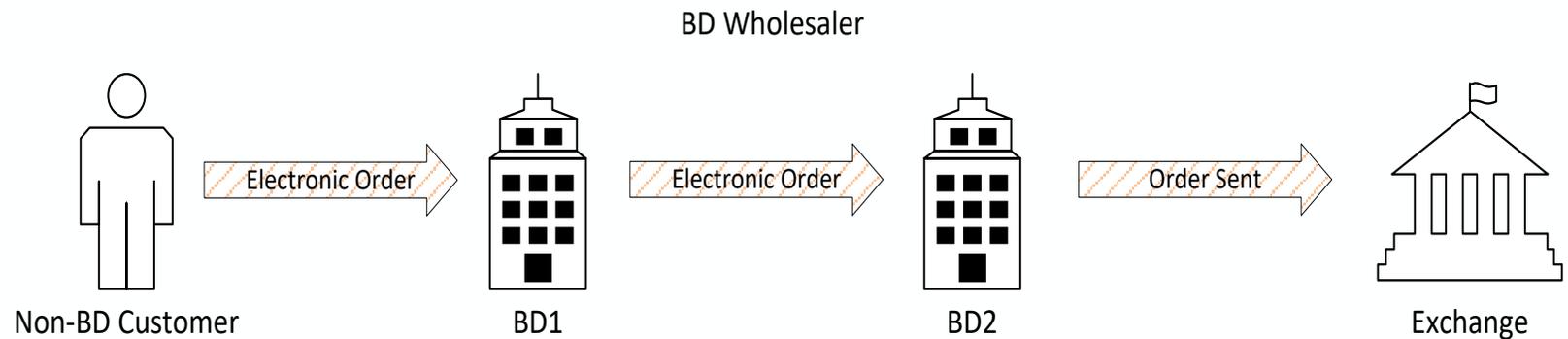
Unlinked Events in Phase 2b (1/2)

Since only electronic single option orders are reportable beginning in Phase 2b, there are order handling scenarios that will result in unlinked CAT events within a single CAT Reporter, or between sending and receiving firms. The *priorUnlinked* and *nextUnlinked* fields are used to identify that the immediately preceding or following event is not reportable in Phase 2b and is not present for linkage.

An immediately preceding or following event may be:

- A manual event
- A complex order
- A paired order

If the *nextUnlinked* value is not known at the time of order receipt, the Industry Member may populate the *nextUnlinked* flag in a separate Option Order Supplement event.

While manual CAT events are not required until Phase 2d, firms may optionally choose to report these events in Phase 2b. If a firm chooses to optionally report manual CAT events in Phase 2b, all reporting must be timely, accurate, and complete.

Unlinked Events in Phase 2b (2/2)

Field Name	Values	
nextUnlinked	M	Next Manual
	C	Next Complex
	P	Next Paired
	Blank	Not Applicable
priorUnlinked	M	Prior Manual
	C	Prior Complex
	Blank	Not Applicable

One or both of these fields will be on all options event types as conditional.
If an event does not have this field populated, linkage will be attempted.

Manual and Electronic Order Mix: Paper Ticket
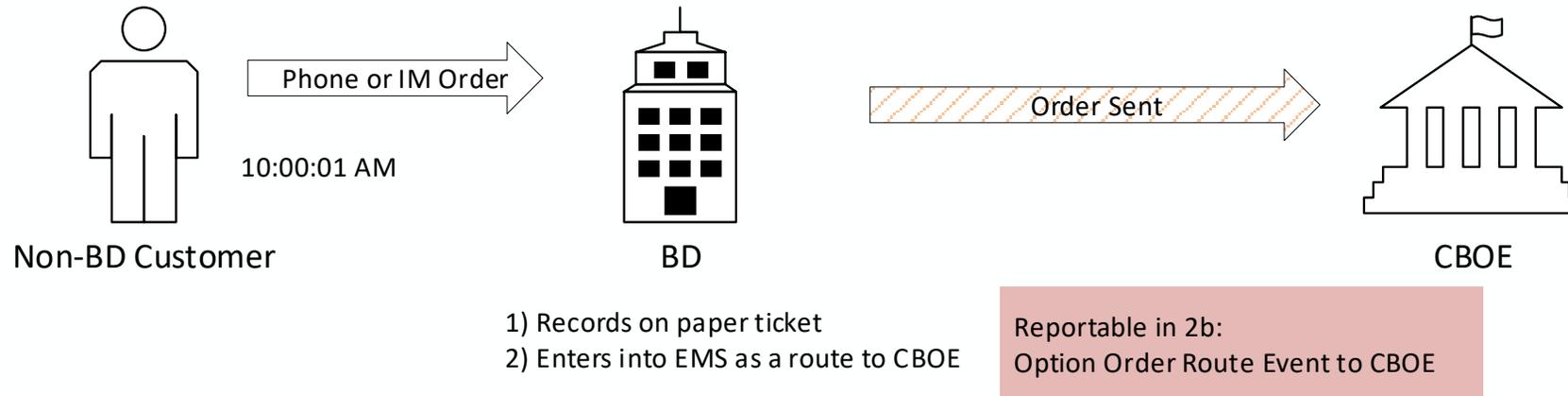
Non-BD Customer — Phone or IM Order — 10:00:01 AM → **BD** — Order Sent → **CBOE**

BD:
1) Records on paper ticket
2) Enters into EMS as a route to CBOE

Reportable in 2b:
Option Order Route Event to CBOE

Report a route report with the Prior Unlinked Indicator = M

Manual and Electronic Order Mix: Order Capture System
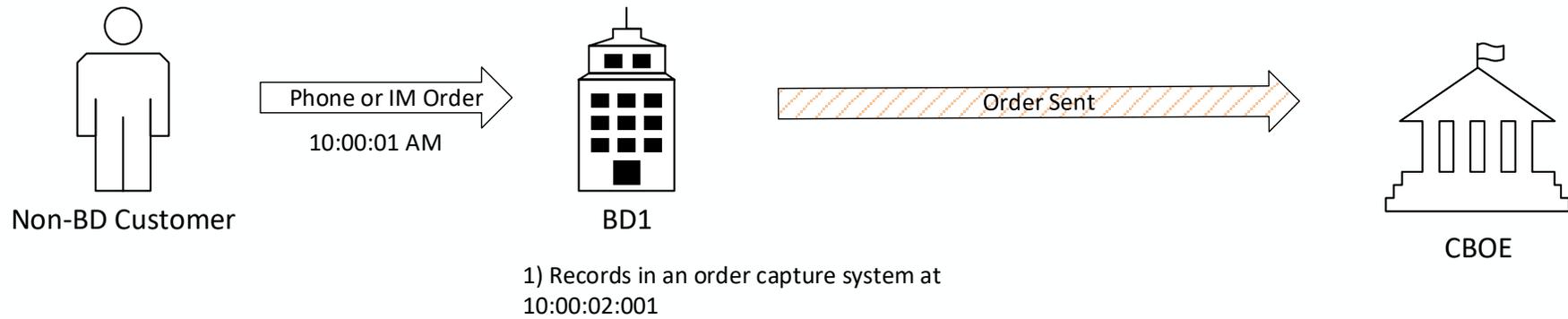
Non-BD Customer

Phone or IM Order
10:00:01 AM

BD1

Order Sent

CBOE

1) Records in an order capture system at
10:00:02:001

Reportable in 2b:
Option Order Route Event to CBOE

Report a route report with the Prior Unlinked Indicator = M

Manual and Electronic Order Mix: Order Electronically Received Manually Executed

Non-BD Customer → Electronic Order → BD1 → Call Floor Broker → BD2
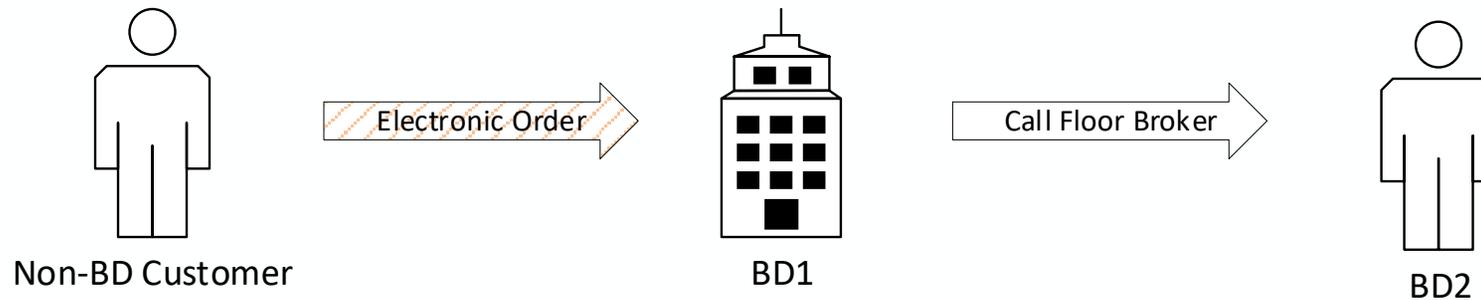
Reportable in 2b:
New Option Order Event

Report a new order with the Next Unlinked Indicator = M

Manual and Electronic Order Mix: Phone + FIX Message

Non-BD Customer

Verbal Simple Phone Order
10:00:01 AM

One FIX Message
Received 10:00:30:003
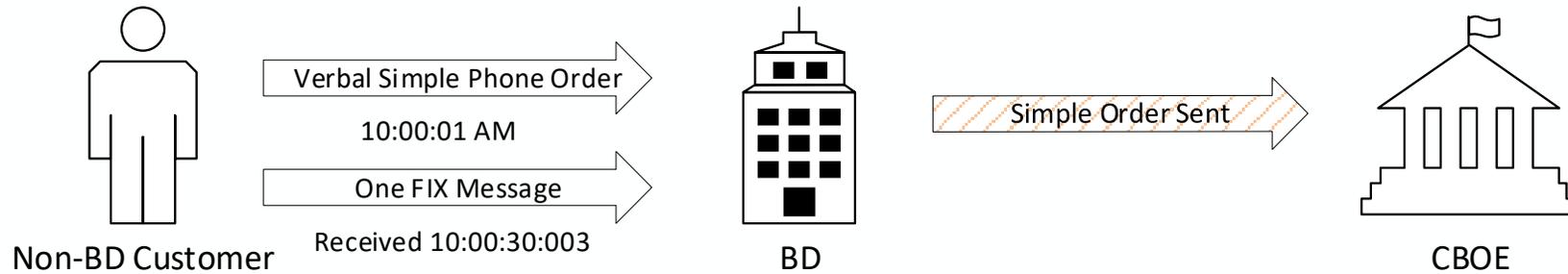
Note: because the order was initially received verbally, this order is out of scope for 2b

BD

Simple Order Sent

CBOE

Reportable in 2b:
Option Order Route Event to CBOE

Report a route report with the Prior Unlinked Indicator = M

Manual and Electronic Order Mix: Electronic Order with Manual Handling

Non-BD Customer → Order → BD1 Sales Desk → Order Verbally Communicated → BD1 Position Desk → Order Sent → CBOE

Reportable in 2b:
New Option Order Event

Reportable in 2b:
Option Order Route Event to CBOE
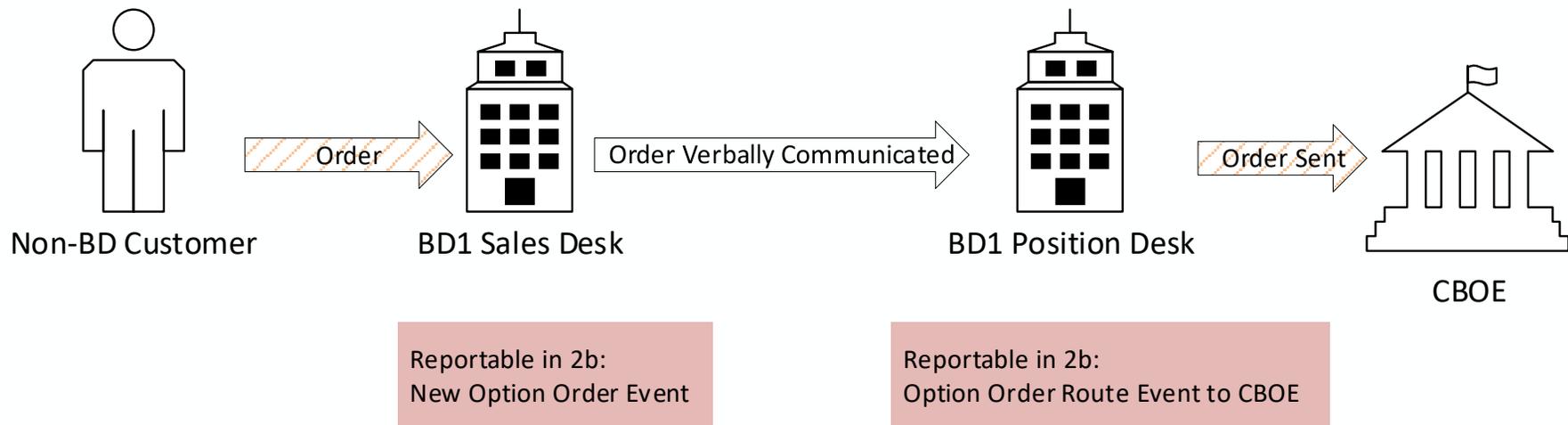
Report a new order with a Next Unlinked Indicator = M
Report a route report with the Prior Unlinked Indicator = M

Manual and Electronic Order Mix :
Order Electronically Received, Manually Executed

Non-BD Customer → Electronic Order → **BD1** → Electronic Order → **BD2** → Call Floor Broker → **BD2**

BD1 Reportable in 2b:
New Option Order Event
Option Order Route Event

BD2 Reportable in 2b:
Option Order Accepted Event with
Next Unlinked Indicator = M

Non-BD Customer → Electronic Order → **BD1** → Phone Order → **BD2** → Call Floor Broker → **BD2**
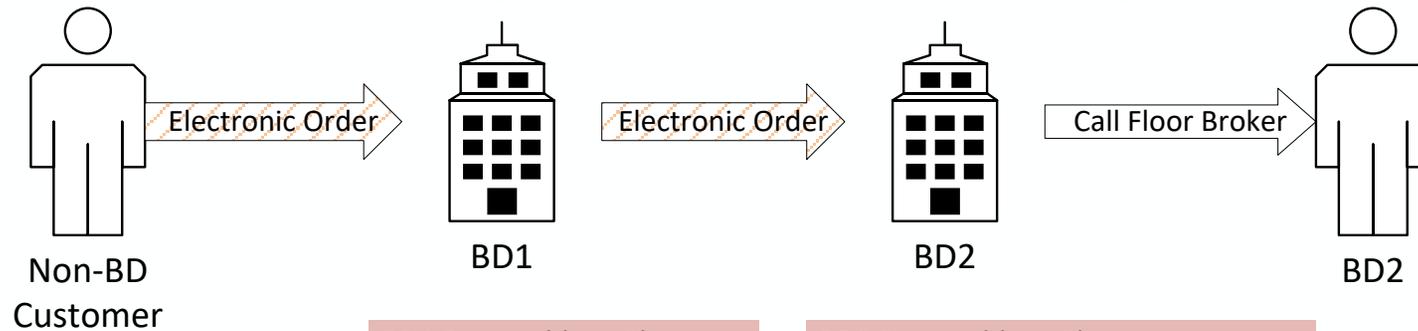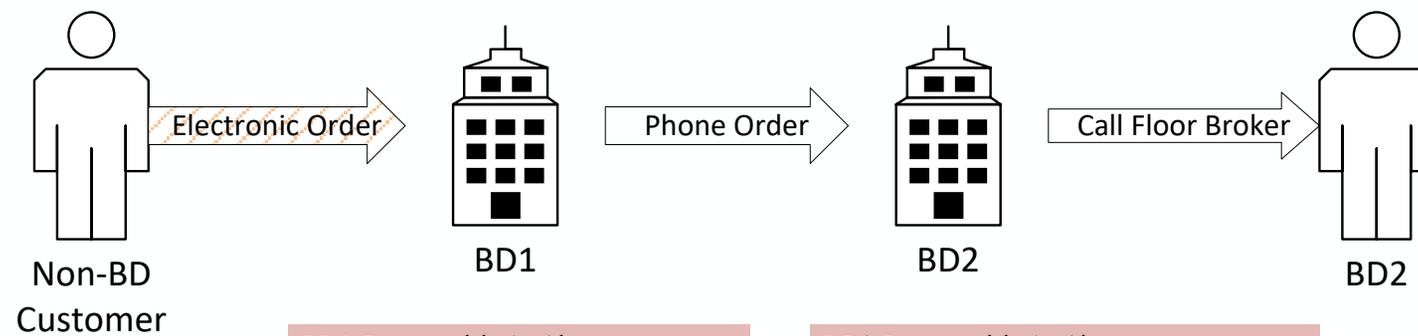
BD1 Reportable in 2b:
New Option Order Event
With Next Unlinked Indicator = M

BD2 Reportable in 2b:
Nothing: Option Order Accepted
Event and Route Event are manual

Complex Order Split into Individual Legs to be Worked in a Customer Account

Non-BD Customer → Complex Electronic Order / 4 Legs → **BD Customer Account**

Single Order Sent → Single Order Sent → Single Order Sent → Single Order Sent → **CBOE**

One for each leg
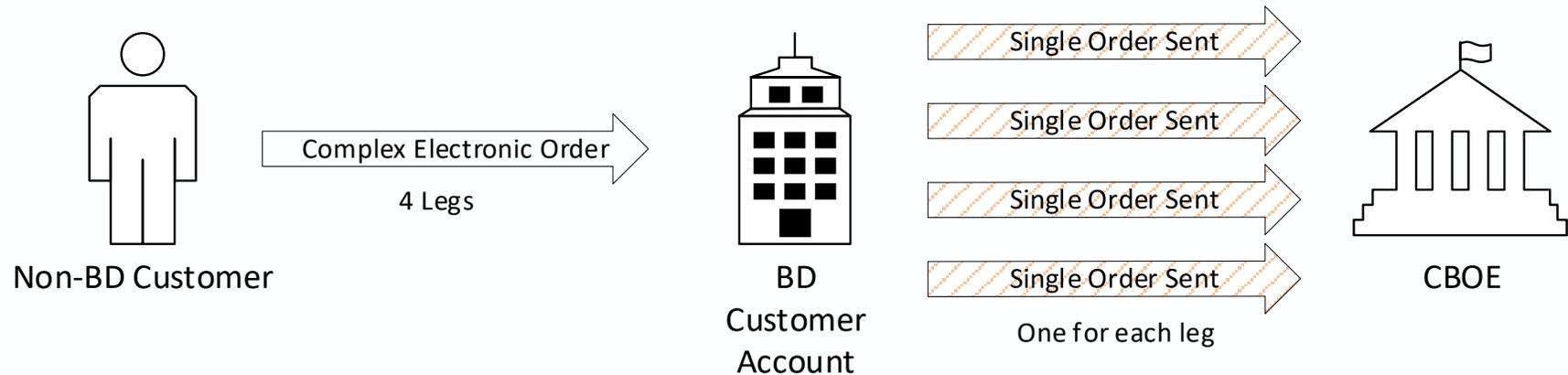
In Phase 2b, these are not linked to the complex order which is not reported. In Phase 2d, the reporting on this will change requiring the single orders to include the complex order ID from the customer order.

Reportable in 2b:
 4 Option Order Route Events

Report an Order Route with the Prior Unlinked Indicator = C

Industry Member Reporting Scenarios Reference Number: **Section 3.6.1**

Complex Order (Option only legs) Split into Individual Legs to be Worked in a Customer Account

Non-BD Customer

Complex Electronic Order
4 Legs

BD1 Customer Account

Single Order Sent
Single Order Sent
Single Order Sent
Single Order Sent

One for each leg

BD2

Single Order Sent
Single Order Sent
Single Order Sent
Single Order Sent

CBOE
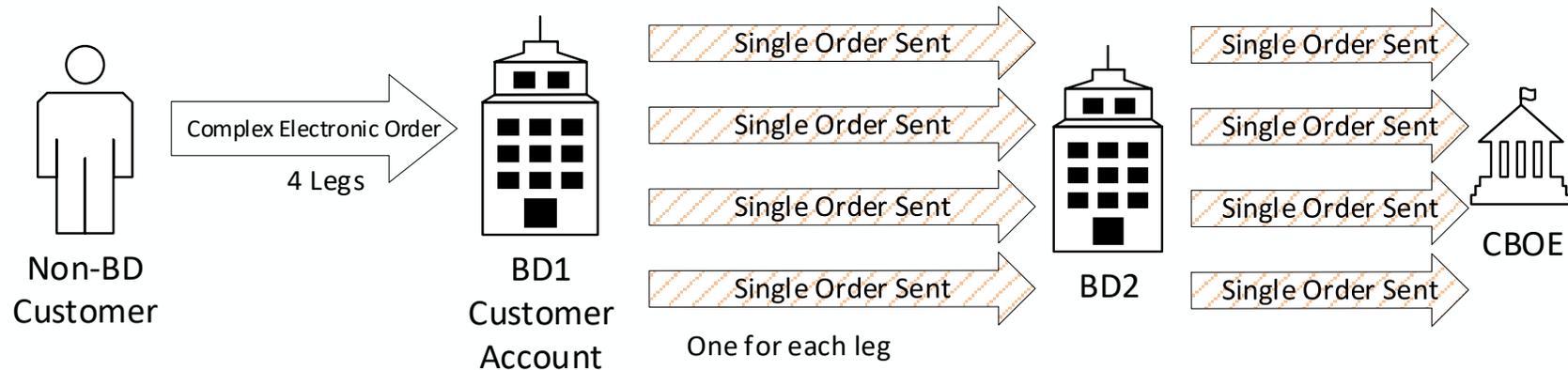
BD1: Reportable in 2b:
4 Option Order Route Events with Prior Unlinked Indicator = C

BD2: Reportable in 2b:
4 Order Accepted Events
4 Option Order Route Events

In Phase 2b, these are not linked in any way, In Phase 2d, the reporting on this will change requiring the single orders to include the complex order ID from the customer order.

Paired Option Orders: BD1 solicits BD2

If BD1 receives a simple electronic order and then solicits other brokers, and obtains the other side, then it sends a paired order to CBOE.

See CAT FAQ K6 regarding reporting obligations for solicitations

- No Reporting in 2b
- Exact Reporting Requirements for 2d are being determined

Solicits Broker

Positive Response

BD2

Simple Electronic Order

100 contracts

Reportable in 2b:
New Option Order Event

Non-BD Customer

BD1

Paired Order Sent

- No Reporting in 2b
- Reportable in 2d
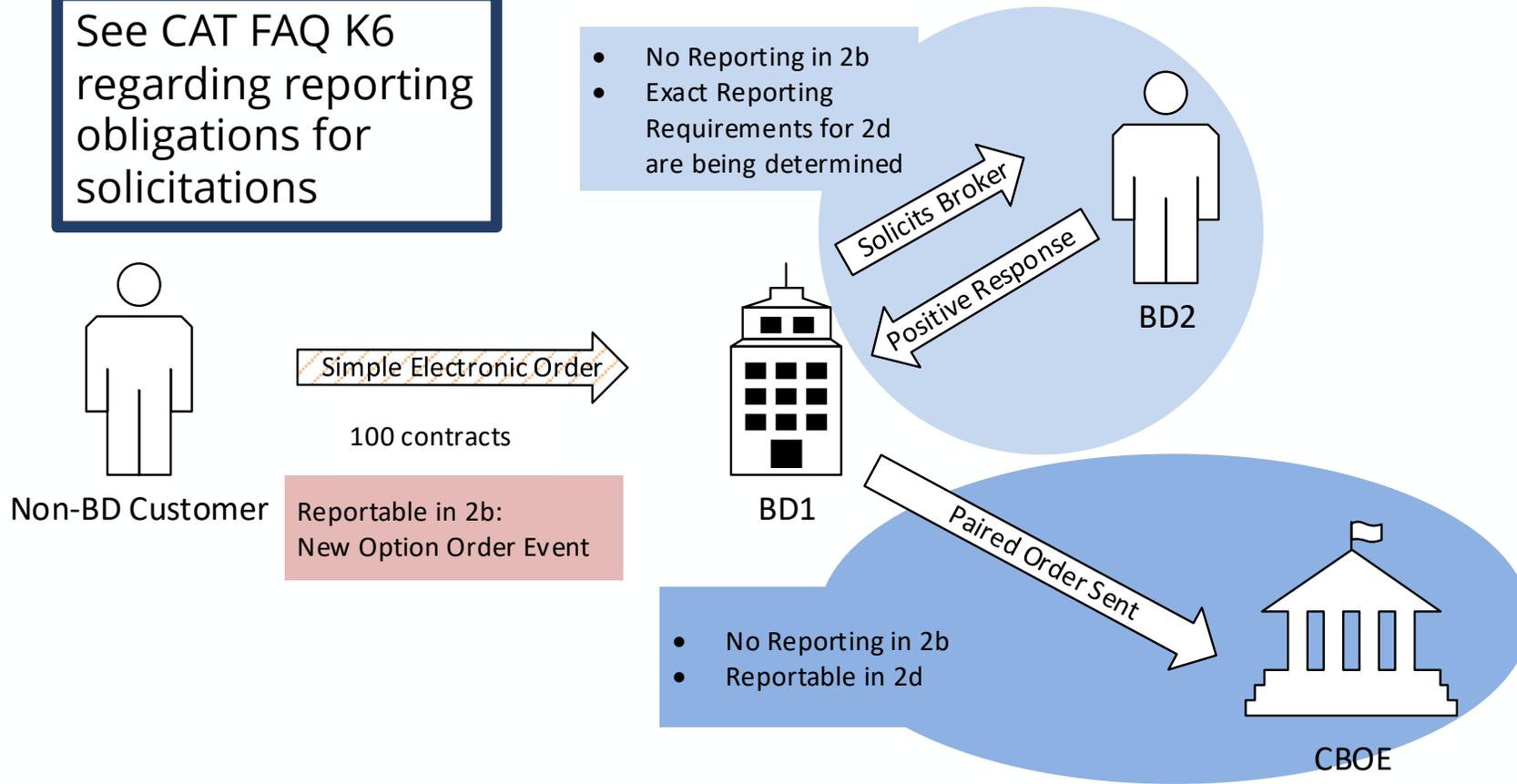
CBOE

Report a new order with the Next Unlinked Indicator = P

Paired Option: BD solicits and routes

A BD1 receives a simple electronic order for 100 contracts and then takes the other side for 60 contracts, by sending a paired order to CBOE and routing the remaining 40 contracts to ISE.

No unlinked indicator is necessary since both the new and the route can be linked to a related record

Solicits Broker

Positive Response

60 contracts

BD2

- No Reporting in 2b
- Exact Reporting Requirements for 2d are being determined

Simple Electronic Order

100 contracts

Non-BD Customer

BD1

Single Order

40 contracts

ISE

Reportable in 2b:

- New Option Order Event
- Option Order Route Event to ISE

Paired Order Sent

60 contracts

- No Reporting in 2b
- Reportable in 2d

CBOE
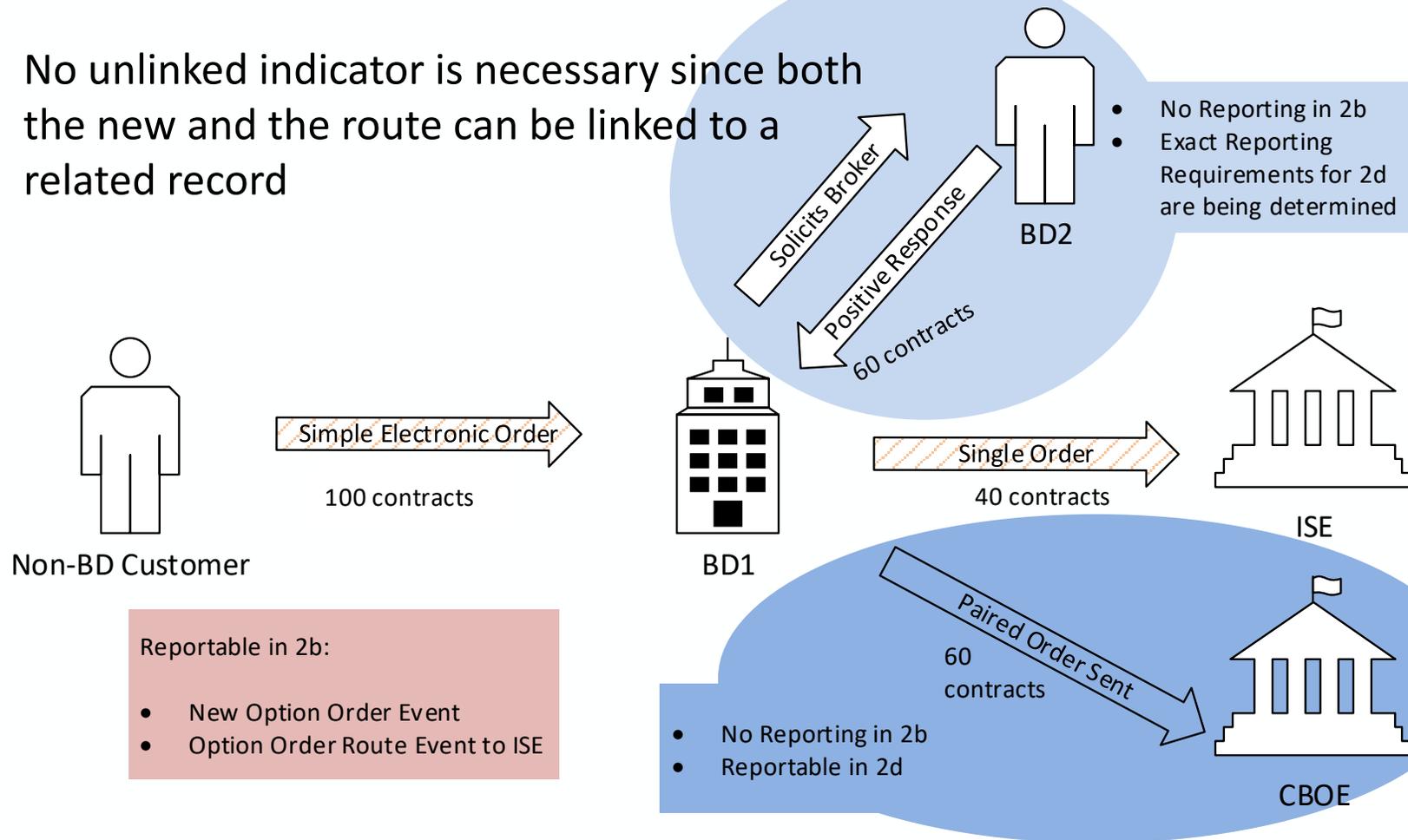
Complex Order represented as Individual Legs in 2b

In Phase 2b, if an Industry Member sends (or receives) a complex order electronically as individual simple option order legs, the preferred method of reporting is to suppress these events in CAT.

If an Industry Member is unable to suppress these events in phase 2b, the Industry Member must populate the *handlingInstructions* field with 'CMPX' to indicate that the order is part of a complex option order, and must include a *priorUnlinked* or *nextUnlinked* flag of 'C' to indicate there will be no linkage to a related order at the sending (or receiving) firm.

Manual and Electronic Order Mix: Verbal Complex Order

Verbal Complex Phone Order

4 Legs

4 FIX Messages

One for each leg

Non-BD Customer

Single Complex Order Sent

BD

CBOE
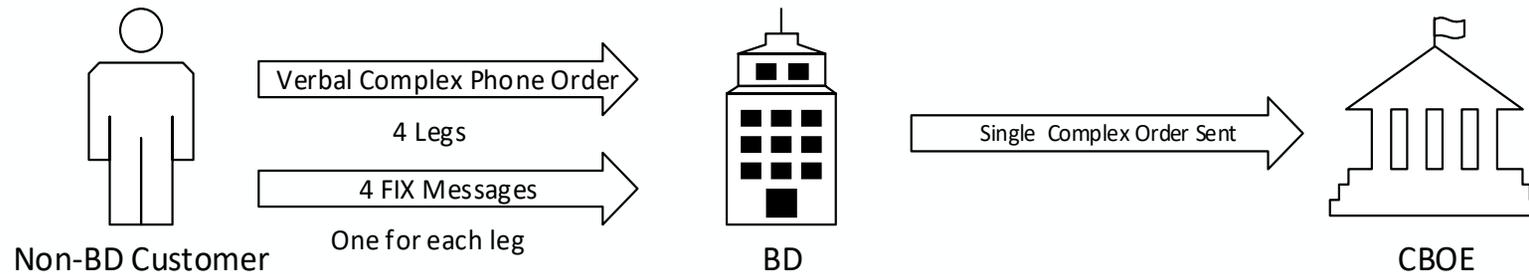
1) Customer verbally places an order for a complex order with 4 legs, but his system can only support sending simple option orders

Reportable in 2b:
Nothing because only simple orders in this phase and the order was initially received from the customer as a complex order

If voluntarily reporting the individual legs: Report four new orders with the handling Instructions field with 'CMPX' and a next Unlinked flag of 'C'

Industry Member Reporting Scenarios Reference Number: **Section 3.6.2**

Complex Order sent electronically as single orders, but with instructions to treat as Complex

Receiver combines legs Options to create a Complex Option

Older Version of FIX : Simple Option Order*

Older Version of FIX : Simple Option Order*

Single Combined Complex Order Sent

Older Version of FIX : Simple Option Order*

Non-BD Customer

BD

CBOE

* Handling Instruction or Standing Instruction to treat as one Complex order

Nothing Reportable in 2b:
The order was initially received as a Complex Order, therefore no reports.

Nothing Reportable in 2b:
A Complex Order, therefore no reports.

If voluntarily reporting the individual legs: Report three new orders with the handling Instructions field with 'CMPX' and a next Unlinked flag of 'C'

Manual and Electronic Order Mix: Verbal Complex Order

1) Customer sends an electronic complex order to BD1

2) BD1 verbally places an order with BD2 for a complex order with 4 legs, but his system can only support sending simple option orders

Non-BD Customer — Single Complex Order → **BD1**

Verbal Complex Phone Order — 4 Legs →

4 FIX Messages — One for each leg → **BD2**

Single Complex Order → **CBOE**

Nothing Reportable in 2b:
A Complex Order, therefore no reports.

Nothing Reportable in 2b:
A Complex Order, therefore no reports.

BD1 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Route Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and NextUnlinkedFlag = 'C'

BD2 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Accepted Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

Complex Order (option only legs) sent electronically as single orders, but with instructions to treat as complex

BD2 combines individual messages to create a Complex Option

* Handling Instruction or Standing Instruction to treat as one Complex order

Older Version of FIX : Simple Option Order*

Older Version of FIX : Simple Option Order*

Older Version of FIX : Simple Option Order*

Single Complex Order Sent

Single Complex Order Sent

Non-BD Customer

BD1

BD2

CBOE

Nothing Reportable in 2b: A Complex Order, therefore no reports.

Nothing Reportable in 2b: A Complex Order, therefore no reports.

BD1 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Route Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

BD 2 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Accepted Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

Combined Orders

Subject to applicable SRO rules, there are options order handling scenarios in which a firm may combine individual, simple orders from customers before routing to an exchange as a single, simple order for execution. In these scenarios, firms must report the combined order as routed to an exchange or another IM, in addition to the individual customer orders and related order fulfillments.

Specifically in Phase 2b:

- The combined order must be reported with a "*representativeInd*" of "O" to indicate an Options Combined Order.
- For each fill an individual customer order receives, an Order Fulfillment Report is required to be reported with a "*fulfillmentLinkType*" of "O" to indicate an Options Order Fulfillment
- Linkage between the individual customer orders and the combined order is not required until Phase 2d
- Any portions of the order involving a Complex Order are not reportable until phase 2d

Combined Order Scenario

Broker 1 receives three separate, simple customer orders and routes a single (simple) order to an exchange. Required Reports would be:

- New Option Order events for each single leg customer order electronically received
- New Option Order for the combined order representing the individual orders with a representativeInd = O. There is no linkage requirement until Phase 2d
- Option Order Route for the combined order
- Option Order Fulfillment events for each single leg customer order which are one sided in Phase 2b (fulfillmentLinkType = O)


Customer 1 → Simple Electronic Order → BD → Routes Combined Order to Exchange → CBOE

Customer 2 → Simple Electronic Order

Customer 3 → Simple Electronic Order
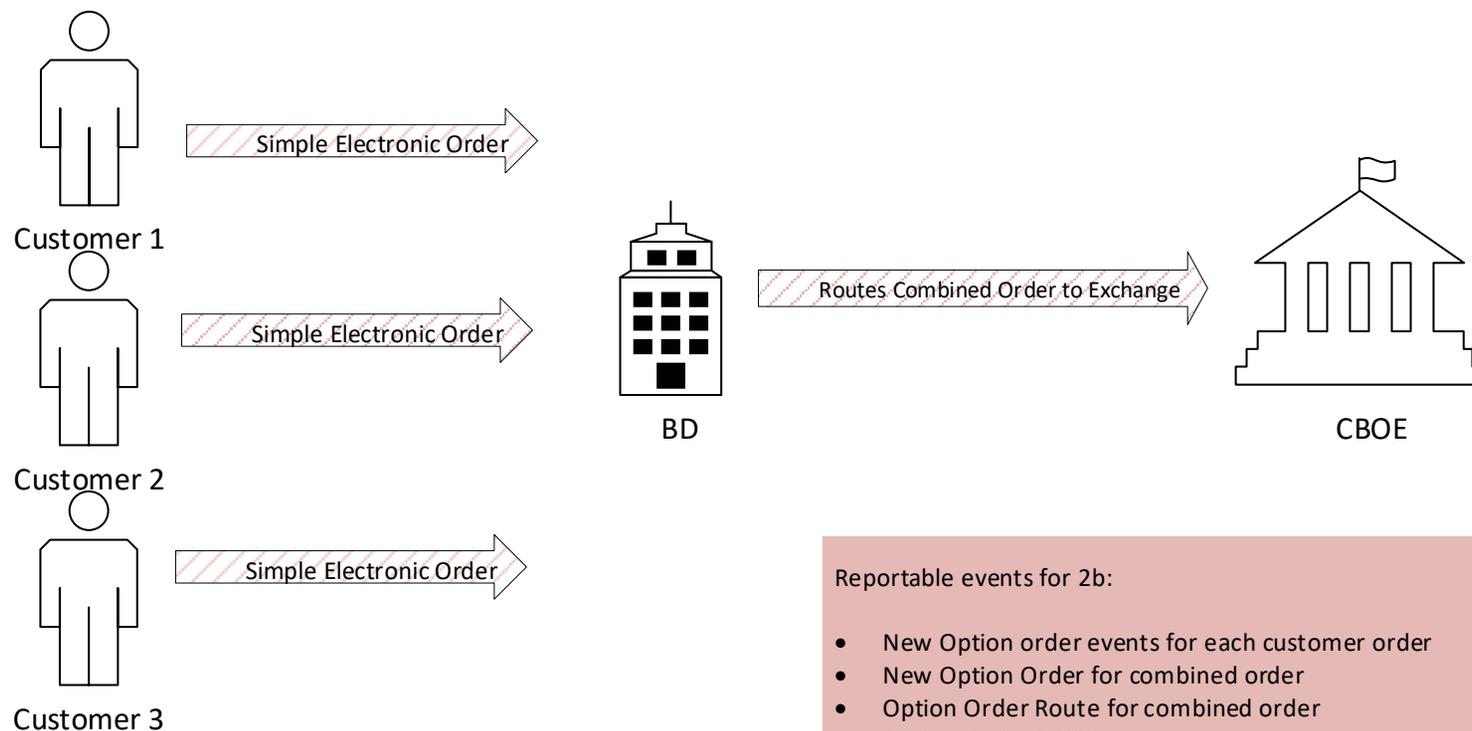
Reportable events for 2b:

- New Option order events for each customer order
- New Option Order for combined order
- Option Order Route for combined order
- Option Order Fulfillment events

Industry Member Reporting Scenarios Reference Number: **Section 3.2.1**

Options Wholesaler Scenarios

Option Wholesaler – Simple Workflow
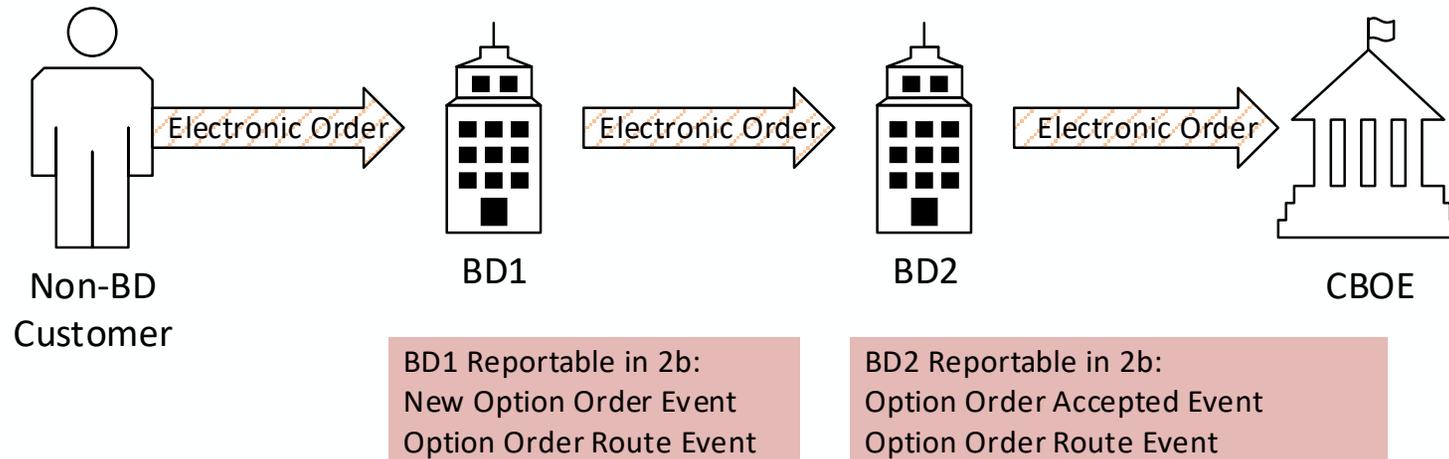
Non-BD Customer → Electronic Order → BD1 → Electronic Order → BD2 → Electronic Order → CBOE

BD1 Reportable in 2b:
New Option Order Event
Option Order Route Event

BD2 Reportable in 2b:
Option Order Accepted Event
Option Order Route Event

# Option Wholesaler - Manual and Electronic Order Mix : Order Electronically Received, Manually Executed

Non-BD Customer → Electronic Order → **BD1** → Electronic Order → **BD2** → Call Floor Broker → **BD3**

BD1 Reportable in 2b:
New Option Order Event
Option Order Route Event

BD2 Reportable in 2b:
Option Order Accepted Event with
Next Unlinked Indicator = M

Non-BD Customer → Electronic Order → **BD1** → Phone Order → **BD2** → Call Floor Broker → **BD3**
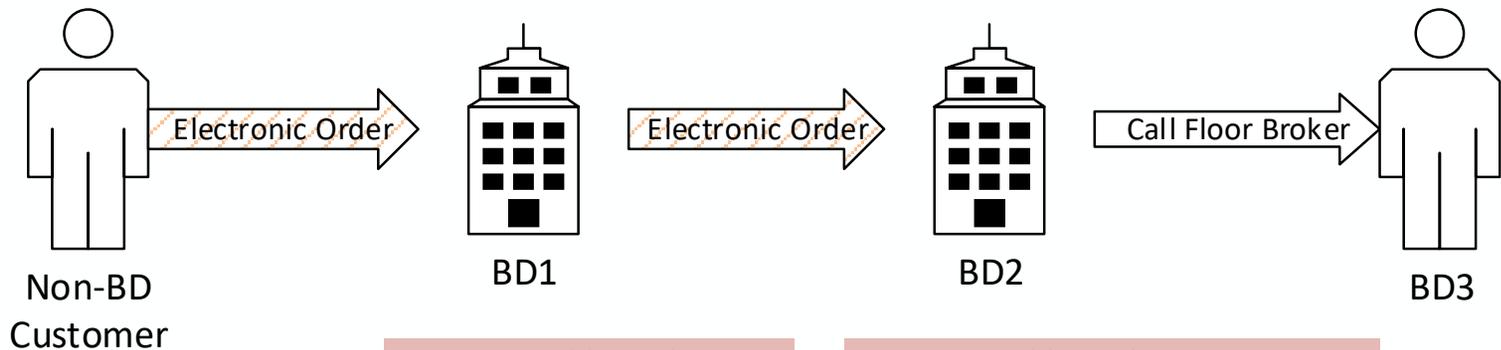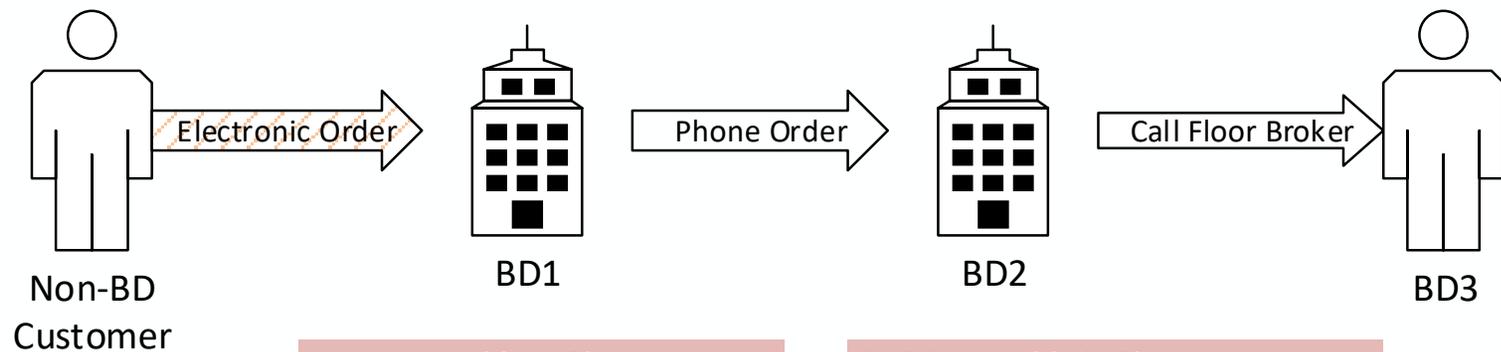
BD1 Reportable in 2b:
New Option Order Event
With Next Unlinked Indicator = M

BD2 Reportable in 2b:
Nothing: Option Order Accepted
Event and Route Event are manual

Option Wholesaler - Manual and Electronic Order Mix: Verbal Complex Order (option only legs)

1) Customer sends an electronic complex order to BD1

2) BD1 verbally places an order with BD2 for a complex order with 4 legs, but his system can only support sending simple option orders

Single Complex Order

Verbal Complex Phone Order

4 Legs

4 FIX Messages

One for each leg

Single Complex Order

Non-BD Customer

BD1

BD2

CBOE

Nothing Reportable in 2b:
A Complex Order, therefore no reports.

Nothing Reportable in 2b:
A Complex Order, therefore no reports.

BD1 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Route Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

BD2 Reportable in 2b:
**Preferred** : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Accepted Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

Option Wholesaler - Complex Order (option only legs) sent electronically as single orders, but with instructions to treat as complex


BD2 combines individual messages to create a Complex Option

* Handling Instruction or Standing Instruction to treat as one Complex order

Older Version of FIX : Simple Option Order*

Older Version of FIX : Simple Option Order*

Older Version of FIX : Simple Option Order*

Single Complex Order

Single Complex Order

Non-BD Customer

BD1

BD2

CBOE

Nothing Reportable in 2b: A Complex Order, therefore no reports.

Nothing Reportable in 2b: A Complex Order, therefore no reports.

BD1 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Route Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

BD 2 Reportable in 2b:
Preferred : Report nothing (suppress the individual legs)

Optional : Report each individual leg as an Order Accepted Event with handling instruction of CMPX and Prior Unlinked Indicator = 'C' and Next Unlinked Indicator = 'C'

Option Wholesaler - Paired Option Orders: BD2 solicits BD3

BD2 receives a simple electronic order, then solicits other brokers, obtains the other side, then sends a paired order to CBOE.

- No Reporting in 2b
- Exact Reporting Requirements for 2d are being determined

Solicits Broker

Positive Response

BD3

Electronic Order

Electronic Order

Non-BD Customer

100 contracts

BD1

BD2

Reportable in 2b:
New Option Order Event
Option Route Event

- No Reporting in 2b
- Reportable in 2d

Paired Order Sent

CBOE
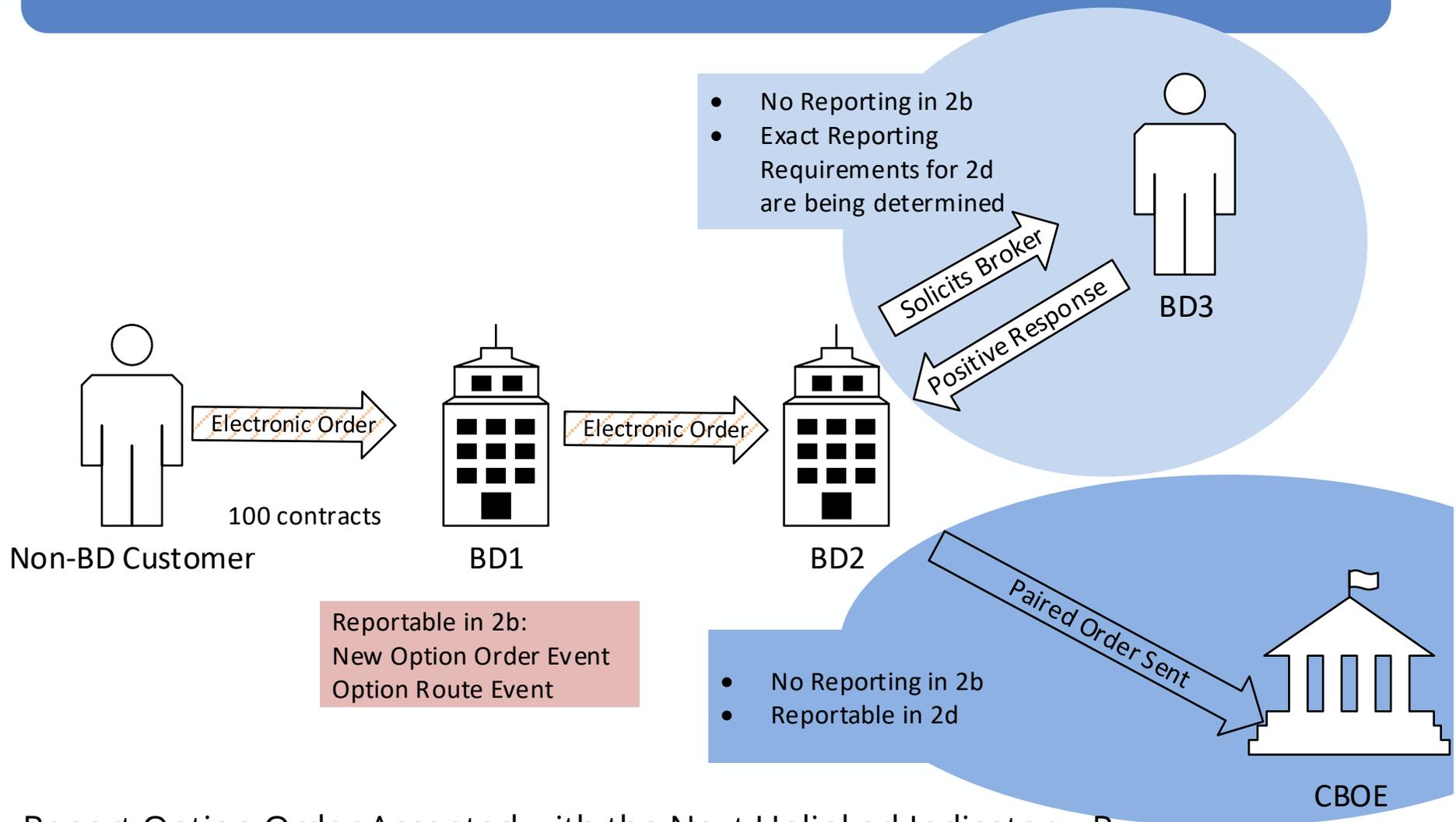
Report Option Order Accepted with the Next Unlinked Indicator = P

Other 2b Scenarios

"Post and Facilitate"

Non-BD Customer → Simple Electronic Order → BD1 → Customer Order Sent / BD Order Sent (1 sec later) → CBOE

Reportable in 2b:
New Option Order Event (customer's)

Reportable in 2b:
Route Event to exchange (customer's)
New Order Event (BD1's own interest on the other side)
Route Event to exchange (BD1's)
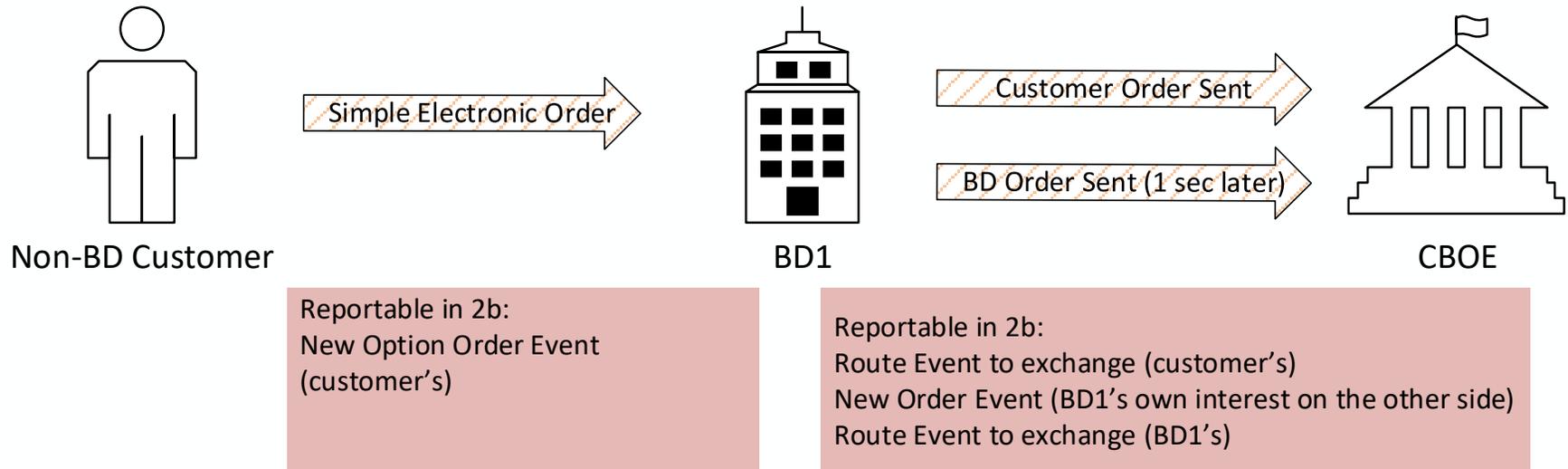
Responses to Auctions

- Responses to auctions of simple orders and auctions of paired simple orders are reportable in Phase 2b, with a Handling Instruction of "AucResp" (new) with the Auction ID provided in the name/value pair
- Responses to auctions of complex orders are reportable in Phase 2d

Auction

Simple Electronic Order

Simple Electronic Order

Market Makers

BOX

Reportable in 2b:
New Option Order Event
Option Order Route Event

Industry Member Reporting Scenarios Reference Number: **Section 3.7.2**
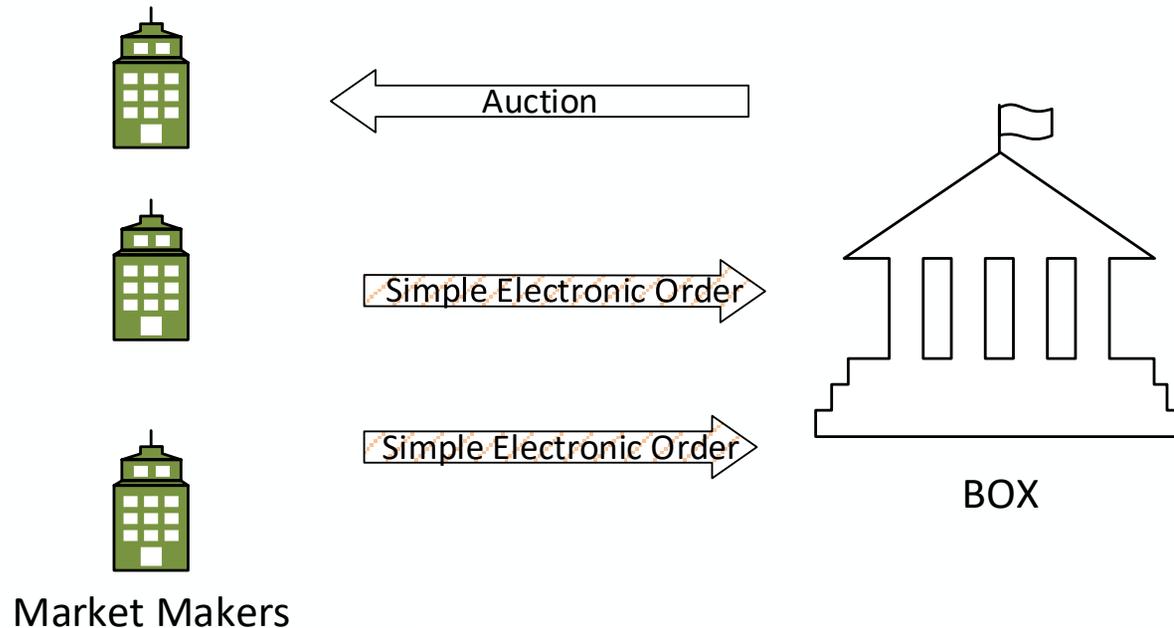
OSI Symbology List

The CAT Processor published a sample OSI Symbology list similar to the Equity Symbol List to the www.catnmsplan.com website on July 15, 2019.

Field Name	Maximum Field length	Definition
optionKind	14 characters	**Type of Option** OCC Option Sub-Classification or, for FLEX Percent Options, classification provided by the exchange; values: STAN = Standard BINY = Binary FLEX = FLEX FLEXPCT = FLEX Percent RNGE = Range
optionID	22 characters	**OSI Symbol** Option symbol in the format of the Option Symbology Initiative
primaryDeliverable	6 characters	**Primary Deliverable Symbol** The symbol of the primary deliverable of the option.
exerciseStyle	1 character	**Exercise Style** Values: A = American E = European
settlementType	2 characters	**Settlement Type** Values: AM PM AS = Asian CQ = Cliquet

Registration Reminder

- CAT Registration ended on June 27, 2019

- All current Industry Members with a CAT reporting obligation must register

- Registration Form can be found on www.catnmsplan.com/registration/index.html and is to be submitted online

- Questions may be directed to the FINRA CAT Helpdesk at
  - 1-800-696-3348
  - help@finracat.com

FDID

Key Concepts

There are two separate and distinct concepts:

1. **Customers** – defined in Rule 613 and represented by the CAT Customer ID (CCID).

2. **Trading Accounts** – addressed in the NMS Plan and represented by the Firm Designated ID (FDID). This can represent **firm or customer accounts**.

A customer can have more than one trading account, and a trading account can have more than one customer.

Customers

Rule 613 defines two types of customers:

1. The account holder(s) of the account at a registered broker-dealer originating the order

2. Any person from whom the broker-dealer is authorized to accept trading instructions for such account, if different from the account holder(s)

A unique CCID will be assigned to *each customer* and will allow customers to be consistently identified across broker-dealers within the Central Repository.

See Appendix B of "Industry Update on the Consolidated Audit Trail Focusing on the Firm Designated Identifier" presentation posted at https://catnmsplan.com/news-page/index.html for plan definitions of Customer and Customer Identifying Information

Examples of Customers That Would Have a CCID

- Individual Investor

- Financial Advisor

- Institutions

- 3rd Party Money Managers

- Any individual that has trading authorization (except an individual with trading authorization that is employed by an entity that is an account holder)

- Any entity that has trading authorization

See Appendix B of "Industry Update on the Consolidated Audit Trail Focusing on the Firm Designated Identifier" presentation posted at https://catnmsplan.com/news-page/index.html for published language surrounding authorized traders employed by an entity.

Trading Accounts

Trading **accounts** are represented in CAT by the Firm Designated ID (FDID)

Industry Members must assign _a single_ FDID to each trading account that is unique across all vendors the IM may use to report new orders to CAT and persistent across time (with limited exceptions things such as closed accounts). For example, if an Industry Member uses multiple vendors for reporting, each vendor must report activity from the same account using the same FDID. (See CAT FAQ M10 for additional information).

See Appendix B of "Industry Update on the Consolidated Audit Trail Focusing on the Firm Designated Identifier" presentation posted at https://catnmsplan.com/news-page/index.html _for plan definitions of FDID and Customer Account Information, along with plan language surrounding Relationship Identifiers, and full text of FAQ M10._

FDID for Certain Institutional/Managed Account Scenarios

In certain institutional and managed account scenarios, the trading account structure may not be available when a new order is first received from a client. In these limited instances, the Industry Member may populate the FDID with an identifier used by the firm to represent the client's trading relationship with the Industry Member ("Relationship ID"). (Relationship IDs are further discussed on slide 9).

> An example of such an identifier could be as follows:
>
> Big Fund Manager is known in Industry Member A's systems as "BFM1".
>
> When an order is placed by Big Fund Manager, the order is tagged to BFM1. Industry Member A could use BFM1 as the FDID.

➢ The Industry Member may use whatever specific identifier is available in its system at the time of order receipt. Because the identify of the client (in the example Big Fund Manager) will be obtained from the CCID, there is no hierarchy requirement for FDID (e.g., parent, affiliate).

See Appendix B of "Industry Update on the Consolidated Audit Trail Focusing on the Firm Designated Identifier" presentation posted at https://catnmsplan.com/news-page/index.html for plan definitions of FDID and Customer Account Information, along with plan language surrounding Relationship Identifiers, and full text of FAQ M10.

Masking Requirements

Actual trading account numbers cannot be used for customer accounts, as this is considered customer identifying information. FDIDs for customer orders must be masked. (See CAT FAQ M2 for additional information).

For proprietary accounts, firms may make their own determination whether it is necessary to mask the actual account number. (See CAT FAQ M9 for additional information).

The CAT NMS Plan Operating Committee is not prescribing any specific methodology that must be used to mask or otherwise transform account numbers when generating an FDID. Firms must ensure that the methodology used to generate an FDID does not result in a unique identifier that can be used to effect a transaction, or that would constitute Customer and Account Information. (See CAT FAQ M6 for additional information).

See Appendix B of "Industry Update on the Consolidated Audit Trail Focusing on the Firm Designated Identifier" presentation posted at https://catnmsplan.com/news-page/index.html for plan definition of Customer and Account Information, along with full text of FAQs M2, M6, and M9.

Examples of What an FDID Would Represent

- Individual Customer Account Number

- Institutional Customer Account Number

- Account Number of Average Price Account Designated for a Specific Customer, e.g. master account or agency Representative Order scenarios

- Account Number of Firm Average Price Account Shared Across Customers (e.g., Master Account, Account Used For Agency Representative Order Flows)

- Entity ID of the firm when an employee of the firm is exercising discretion over multiple customer accounts

- Proprietary Trading Account Number

- Firm assigned identifier representing a trading relationship (Relationship ID) can be used when the trading account structure is unavailable at the time the order was placed

Populating FDID on CAT Order and Allocation Data

What source of FDID can be populated on which order data events?

Event	New Client Orders	Firm Orders	Sub-Account Allocations
CAT Event Type	New Order Event	New Order Event	Allocation Report
Source of FDID	1. Retail account number 2. Institutional account number OR Relationship ID if the trading account structure is not known at the time of order receipt	Always firm trading account number	Always customer trading account number
Masked/ Unmasked	Must be Masked	Can be either masked or unmasked	Must be Masked

Determining Source of Firm Designated ID

Basis for FDID
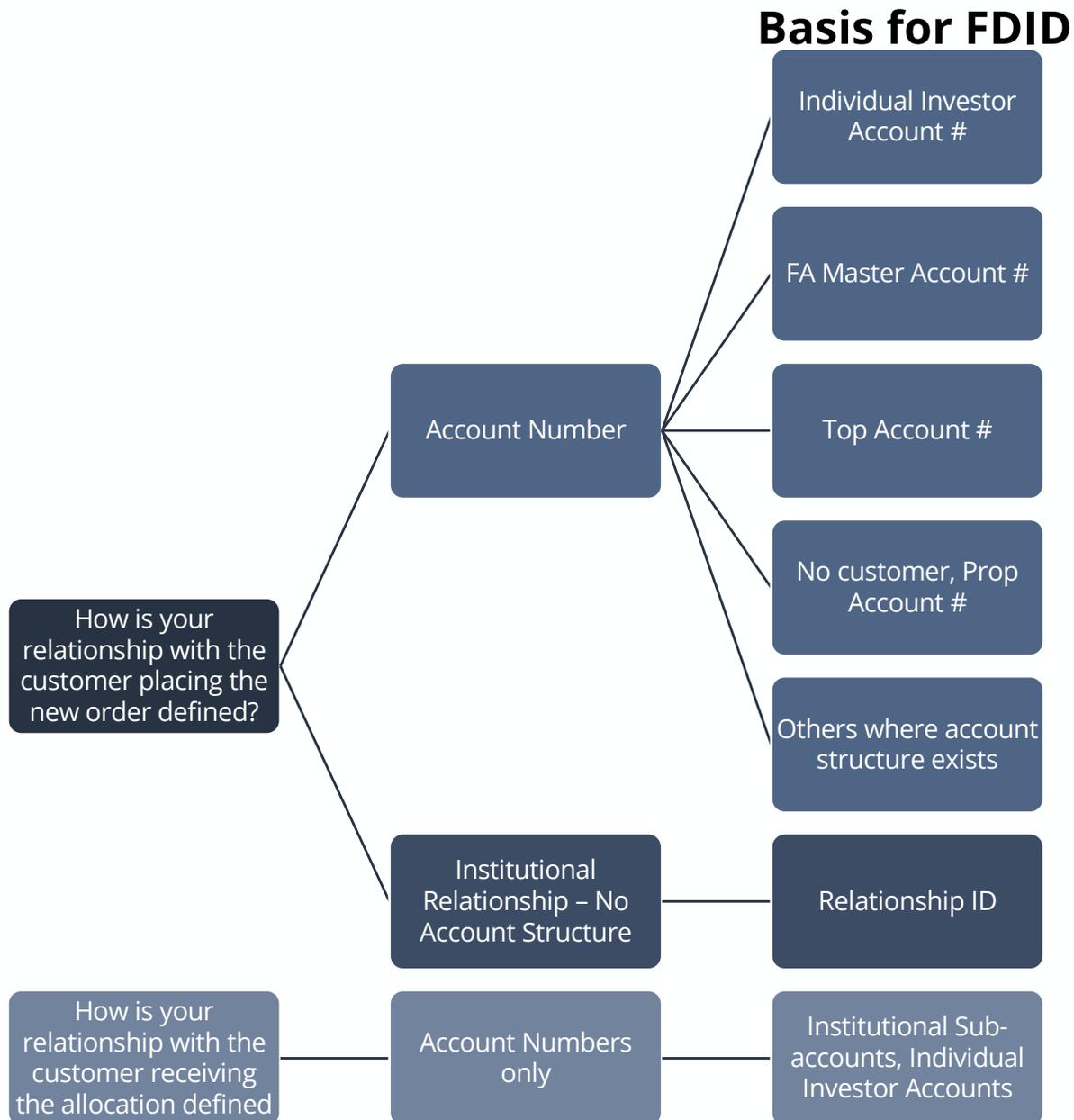
Customer and Account Data

How will account information fields eventually required in the Customer and Account technical specification apply to account numbers and relationship identifiers?

Account Information	Account Number	Institutional Relationship Identifier
Account Number	Actual Account Number	Relationship ID
Date Account Opened/Effective Date	Date account opened/account effective date as per exemptive relief	Date relationship established
Account Type(s)	Values TBD, likely to include ability to provide multiple attributes, e.g., Cash, Margin, IRA, DVP/RVP, etc.	Value to include "relationship" as per definition of account type
Customer Type	TBD	TBD
LTIDs	LTIDs associated with account	LTID as pre-existing LTID guidance