CAT Alert – 2021-03, Updated Publish Date: 08/16/2021

Phase 2d: Transitioning from Phase 2c and Coordinated Industry Tests

1. Revisions Summary

Version	Publish Date	Description
1.0	06/24/2021	Initial publication.
1.1	07/01/2021	Corrected the dates in Section 6 to match those in Table 6.
1.2	08/16/2021	Corrected a date in Table 3.

2. Summary

This CAT Alert describes how Industry Members must transition from Phase 2c to Phase 2d data submissions and the Coordinated Industry Test Plan for Phase 2d.

3. Test Environment Plan Overview

The CAT Industry Member Test Environment ("Test Environment"), CAT Industry Member Production Mirror Environment ("Prod-Mirror Environment") and CAT Industry Member Production Environment ("Production Environment") are used in concert to facilitate efficient testing for Industry Members and CAT Reporting Agents. As such, effective June 28, 2021, the Test Environment is available for testing of Phase 2d data only. All metadata and data files submitted to the Test Environment must be formatted per the schema definitions and requirements for Phase 2d. Any data submitted to the Test Environment in Phase 2a/2b or Phase 2c format will be rejected.

Continued testing of Phase 2c Industry Member data must be submitted to Prod-Mirror Environment. Testing of Phase 2a/2b data is no longer available in any environment.

Table 1: Summary of Acceptable Schema in Each Environment

8 am ET on June 28, 2021 – 8 am ET on December 13, 2021	
Environment	**Acceptable Schema**
Industry Test Environment	Phase 2d
Prod-Mirror Environment	Phase 2c
Production Environment	Phase 2c

Please note that any Reporting Relationships and ATS Order Types that were established in the Test Environment or Prod-Mirror Environment must be recreated in the Production Environment. User accounts with CAT TEST access can access both the Test and Prod-Mirror Environments.

The functionality available in the Test Environment for Phase 2d will be rolled out as per the following:

Table 2: Summary of the Phase 2d Rollout in the Test Environment

Test Environment As of 6/28/2021	Test Environment As of 7/19/2021	Test Environment As of 8/2/2021	Test Environment As of 8/23/2021	Phase 2d Go-live **Production Environment** As of 12/13/2021
Ingestion Industry Test Open for Machine-to-Machine File & Data Integrity Validations & Feedback • Syntax Validations • Conditional Validations **CAT Reporter Portal** • Manual File Upload • Reporting Summary Statistics	**Intrafirm Linkage** Industry Test Open for Machine-to-Machine Intrafirm Linkage Validations & Feedback • Reference Data Validations on *senderIMID, receiverIMID, destination and legDetails OptionID/Symbol* **CAT Reporter Portal** • Linkage File feedback • Linkage Statistics • Error Summary and Error Search including Error Correction • Direct Data Entry	**Interfirm Linkage** Industry Test Open for Machine-to-Machine Interfirm/Exchange Linkage Validations & Feedback • Interfirm Quote Linkage • Interfirm/Exchange linkage for Route Modification Events including Unlinked feedback for Routed Order ID Mismatch **CAT Reporter Portal** • Support Clearing Firm View of Correspondent Reporting Feedback submitted by Third-Party Vendor	**Multi-leg Linkage** Industry Test Open for Machine-to-Machine Multi-leg Linkage Validations & Feedback • Interfirm & Exchange for Multi-leg Events • Firm to Exchange Trade Linkage for MOOT Events ○ Simple and Multi-leg Options **CAT Reporter Portal** • Reconciliation Statistics	**Ingestion & All Linkage** Production Open for Machine-to-Machine File, Data Integrity and **All** Linkage Validations & Feedback **CAT Reporter Portal** • Manual File Upload • Reporting Summary Statistics including reconciliation • Linkage File Feedback • Error Summary and Error Search including Error Correction • Direct Data Entry • Support Clearing Firm View of Correspondent Reporting Feedback submitted by Third-Party Vendor

4. Production Environment Plan Overview

The Phase 2d Production Go-Live date for all Industry Members is December 13, 2021. The transition from the Phase 2c to Phase 2d schema in the Production Environment will begin at approximately 8 am ET on December 13, 2021 via a code deployment. Prior to code deployment, all submissions to the Production Environment must be in Phase 2c format, no matter the Trade Date. Starting at approximately 8 am ET on December 13, 2021, all submissions to the Production Environment must be in the Phase 2d format, no matter the Trade Date.

Additionally, after code deployment on December 13, 2021:

- All metadata and data files must follow schema version 4.0.0 or higher. Any files that are received after code deployment on December 13, 2021 with a prior schema version will reject.
- All data, including late events, repairs and corrections for events that originated prior to code deployment on December 13, 2021 must be reported in the Phase 2d format.

Also beginning on December 13, 2021, linkage errors will be returned in the Phase 2d format. Industry Members may need to repair a file and/or record that was submitted in the Phase 2c format prior to code deployment December 13, 2021. If the repair will be submitted after code deployment on the Phase 2d Go-Live date, the file or record must be repaired and resubmitted in the Phase 2d format. For example, an event that occurred on CAT Trading Day December 10, 2021 is submitted to CAT by 8 am ET on December 13, 2021 in the Phase 2c format. Linkage feedback on this record will be returned in the Phase 2d format by 12 pm ET on December 13, 2021. Repairs made to this record after code deployment on calendar day December 13, 2021 must be submitted in the Phase 2d format. CAT Reporters will have the ability to make repairs via the Reporter Portal in the Phase 2d format after the Phase 2d code deployment is complete (see Section 5, "Phase 2d Cutover Deployment Timeline").

Table 3 shows that submissions for CAT Trading Days December 7 through December 10, 2021 must be in Phase 2c format while submissions on December 13 through December 16, 2021 must be made in Phase 2d format. The feedback format will be determined by the date on which linkage feedback is delivered.

Table 3: Submission and Feedback by Date and Phase

CAT Trading Day	Submission Due Date	Submission Format	Feedback Delivered By							
			12/8 12 pm ET	12/9 12 pm ET	12/10 12 pm ET	12/13 12 pm ET	12/14 12 pm ET	12/15 12 pm ET	12/16 12 pm ET	12/17 12 pm ET
12/7	12/8 8 am ET	2c	1	2	3	4				
12/8	12/9 8 am ET	2c		1	2	3	4			
12/9	12/10 8 am ET	2c			1	2	3	4		
12/10	12/13 8 am ET	2c				1	2	3	4	
12/13	12/14 8 am ET	2d					1	2	3	4
12/14	12/15 8 am ET	2d						1	2	3
12/15	12/16 8 am ET	2d							1	2
12/16	12/17 8 am ET	2d								1

Recognizing the challenge of converting from Phase 2c to Phase 2d format, FINRA CAT will support the transition by providing linkage feedback in the Phase 2d format beginning with the processing date of December 10, 2021, which is delivered by noon on December 13, 2021 in the following manner:

For errors returned in CSV format

- New fields applicable to Phase 2d will be represented with a delimiter; no values will be populated in those fields.
- Values populated in fields retired in Phase 2d will *not* be removed.
  - Upon resubmission, CAT Reporters must remove the value.

   o The delimiter must *not* be removed.

For errors returned in JSON format

- New required non-Boolean field (TIF code on MOOJ event): a "dummy" value of 'AAA' will be populated. This value meets the data type requirement but is *not* an allowable value that will pass data integrity validations.
- New required Boolean fields will *not* be added.
- New conditional fields will *not* be added.
- Retired fields and values will *not* be removed.
  - o Upon resubmission, CAT Reporters must remove the field and value.

Note that while feedback will be provided in a format that is syntactically correct, Industry Members will still be required to take action to add any required field values and/or fields that apply to the record. Boolean fields that are not present are interpreted by CAT to be "false", and action must be taken to populate the fields if the value is not "false". Conditional fields that are not present are interpreted as "not applicable", and action must be taken to populate the fields if they are applicable. A detailed list of schema changes between Phase 2c and Phase 2d, including changes to existing events, is provided in Tables 4 and 5, below. In addition, an Industry Webinar will be scheduled for September 2021. Further information can be found in the Phase 2d Industry Member Technical Specifications.

Table 4: New Fields for Existing Events

Event Type Code	Change Description	Seq# and Field Name	CSV Feedback	JSON Feedback
MEOR	New **required** field added	32. multiLegInd	Delimiter added	Boolean field not added
	New conditional field added	33. pairedOrderID	Delimiter added	Conditional field not added
	New conditional field added	34. infoBarrierID	Delimiter added	Conditional field not added
	New conditional field added	35. netPrice	Delimiter added	Conditional field not added
	New conditional field added	36. quoteKeyDate	Delimiter added	Conditional field not added
	New conditional field added	37. quoteID	Delimiter added	Conditional field not added
MEIR	New **required** field added	26. multiLegInd	Delimiter added	Boolean field not added
	New conditional field added	27. netPrice	Delimiter added	Conditional field not added
MECO	New **required** field added	32. multiLegInd	Delimiter added	Boolean field not added
	New conditional field added	33. infoBarrierID	Delimiter added	Conditional field not added
	New conditional field added	34. netPrice	Delimiter added	Conditional field not added
MEOT	New **required** field added	35. multiLegInd	Delimiter added	Boolean field not added
	New conditional field added	36. infoBarrierID	Delimiter added	Conditional field not added
MENQ	New **required** field added	27. manualFlag	Delimiter added	Boolean field not added
	New conditional field added	28. electronicTimestamp	Delimiter added	Conditional field not added

Event Type Code	Change Description	Seq# and Field Name	CSV Feedback	JSON Feedback
MEOC	New conditional field added	17. requestTimestamp	Delimiter added	Conditional field not added
	New conditional field added	18. infoBarrierID	Delimiter added	Conditional field not added
MENO	New conditional field added	46. netPrice	Delimiter added	Conditional field not added
MECOM	New conditional field added	33. netPrice	Delimiter added	Conditional field not added
MEOM	New conditional field added to reserved for future use position	22. requestTimestamp	n/a; position already present	Conditional field not added
	New conditional field added	53. netPrice	Delimiter added	Conditional field not added
MEOJ	New conditional field added	32. netPrice	Delimiter added	Conditional field not added
MEOF	New conditional field added	20. infoBarrierID	Delimiter added	Conditional field not added
MONO	New required field added to reserved for future use position	28. solicitationFlag	n/a; position already present	Boolean field not added
	New conditional field added	32. RFQID	Delimiter added	Conditional field not added
	New conditional field added	33. netPrice	Delimiter added	Conditional field not added
MOOR	New required field added to reserved for future use position	30. multiLegInd	n/a; position already present	Boolean field not added
	New conditional field added	34. pairedOrderID	Delimiter added	Conditional field not added
	New conditional field added	35. netPrice	Delimiter added	Conditional field not added

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Event Type Code	Change Description	Seq# and Field Name	CSV Feedback	JSON Feedback
MOIR	New **required** field added	28. multiLegInd	Delimiter added	Boolean field not added
	New conditional field added	29. netPrice	Delimiter added	Conditional field not added
MOCO	New **required** field added	24. multiLegInd	Delimiter added	Boolean field not added
	New conditional field added	25. netPrice	Delimiter added	Conditional field not added
MOCOM	New conditional field added	25. netPrice	Delimiter added	Conditional field not added
MOOJ	New **required** field added	22. timeInForce	Delimiter added	Field added with dummy value 'AAA' populated
	New conditional field added	23. netPrice	Delimiter added	Conditional field not added
MOOC	New conditional field added	17. requestTimestamp	Delimiter added	Conditional field not added
MOOA	New **required** field added to *reserved for future* use position	29. solicitationFlag	n/a; position already present	Boolean field not added
	New **required** field added to *reserved for future* use position	30. pairedOrderID	n/a; position already present	Conditional field not added
	New conditional field added	34. netPrice	Delimiter added	Conditional field not added
MOOM	New conditional field added to *reserved for future* use position	33. requestTimestamp	n/a; position already present	Conditional field not added
	New conditional field added	39. netPrice	Delimiter added	Conditional field not added
MEOTS	New **required** field added	12. multiLegInd	Delimiter added	Boolean field not added

Table 5: Retired Fields

Event Type Code	Key	Event
quoteKeyDate	Optional	MEOT
quoteID	Optional	MEOT
quotingIDQS	Optional	MEOT
<Side Details>.quantity	Required	MEFA, MOFA
	Optional	MEOT, MEOF, MOOF
priorQuoteKeyDate	Conditional	MENQ, MEQR
priorQuoteID	Conditional	MENQ, MEQR
senderIMID	Required	MENQ
destination	Required	MENQ
routedQuoteID	Required	MENQ
mpStatusCode	Required	MENQ
	Conditional	MEQR, MEQC
quoteRejectedFlag	Required	MENQ
custType	Optional	MEPA, MEAA
priorUnlinked	Conditional	MONOS, MOIR, MOOC, MOCOC, MOOJ, MOCOM, MOOR, MOOA, MOOM, MOOF, MOFA, MOCO
nextUnlinked	Conditional	MONOS, MOIR, MOOJ, MOCOM, MONO, MOOR, MOOA, MOOM, MOCO

5.   Phase 2d Cutover Deployment Timeline

The transition from the Phase 2c to Phase 2d schema in the Production Environment will begin at approximately 8 am ET on December 13, 2021. FINRA CAT will communicate the completion of the code deployment via email and System Announcements. It is recommended that submissions for the December 13, 2021 CAT Processing Date should not begin until notification that the Phase 2d deployment is complete.

6.   Phase 2d Coordinated Industry Test

FINRA CAT, LLC will facilitate six coordinated industry tests with the first test commencing with CAT Trading Day September 10, 2021. Industry Members are encouraged to submit a full day of production data to the Test Environment by 8 am on September 13, 2021. FINRA CAT will perform intrafirm, interfirm and exchange linkage on Phase 2d reporting requirements and provide feedback. FINRA CAT will then post a list of participating CAT Reporter IMIDs in both machine-readable and human-readable formats to the Reference Data page of www.catnmsplan.com by 9 am on September 15, 2021. Industry Members and CAT Reporting Agents should use this list to determine if any interfirm unlinked errors were caused by breaks in the linkage key or contra non-participation. The next round of testing starts with CAT Trading Day October 1, 2021 and continues every other Friday until CAT Trading Day November 26, 2021. Table 6, below, lists the Key Dates for the Phase 2d Coordinated Industry Test.

Table 6: Key Dates for the Phase 2d Coordinated Industry Test

Test Number	CAT Trading Day of the Coordinated Industry Test	Data Due to Industry Test	List of Participating IMIDs Posted as Reference Data on the CAT Website
1	9/10/21	By 8 am on 9/13/21	By 9 am on 9/15/21
2	10/1/21	By 8 am on 10/4/21	By 9 am on 10/6/21
3	10/15/21	By 8 am on 10/18/21	By 9 am on 10/20/21
4	10/29/21	By 8 am on 11/1/21	By 9 am on 11/3/21
5	11/12/21	By 8 am on 11/15/21	By 9 am on 11/17/21
6	11/26/21	By 8 am on 11/29/21	By 9 am on 12/1/21

Industry Members who want to submit data after the deadline of the coordinated industry test may do so. The late submissions will participate in linkage processing that may repair unlinked errors for events reported on-time or may result in new unlinked errors. Firms that submit after the deadline will not be represented in the list of firms that participated in the coordinated test.

7. Phase 2d Cutover Resources

- Phase 2d Industry Member Technical Specifications
- Phase 2d Industry Member Schema