### January 30, 2024

## VIA EMAIL AND HAND DELIVERY

Ms. Vanessa Countryman Secretary Securities and Exchange Commission 100 F Street, NE Washington, DC 20549-1090

## Re: CAT NMS Plan Section 6.6(c)(ii) Quarterly Progress Report

Dear Ms. Countryman:

The Participants<sup>1</sup> in the National Market System Plan Governing the Consolidated Audit Trail ("CAT NMS Plan")<sup>2</sup> respectfully submit the enclosed Quarterly Progress Report ("QPR") for the calendar quarter ending on December 31, 2023 ("Q4 2023"), pursuant to Section 6.6(c)(ii) of the CAT NMS Plan.<sup>3</sup> In accordance with Section 6.6(c)(ii), the Q4 2023 QPR includes a detailed description of the progress made by the Participants during Q4 2023 toward achieving each of the milestones set forth in the Implementation Plan.<sup>4</sup> Please feel free to contact any of the Participants if you have any questions.

Respectfully submitted,

Participants of the CAT NMS Plan

Enclosures

cc:	The Hon. Gary Gensler, Chair
	The Hon. Hester M. Peirce, Commissioner
	The Hon. Caroline A. Crenshaw, Commissioner
	The Hon. Mark T. Uyeda, Commissioner
	The Hon. Jaime Lizárraga, Commissioner
	Mr. Haoxiang Zhu, Director, Division of Trading and Markets
	Mr. David S. Shillman, Associate Director, Division of Trading and Markets
	Mr. David Hsu, Assistant Director, Division of Trading and Markets
	Mr. Hugh Beck, Senior Advisor for Regulatory Reporting
	Ms. Erika Berg, Special Counsel, Division of Trading and Markets
	Mr. Mark Donohue, Senior Policy Advisor, Division of Trading and Markets

<sup>&</sup>lt;sup>1</sup> The twenty-five Participants of the CAT NMS Plan are: BOX Exchange LLC; Cboe BYX Exchange, Inc., Cboe BZX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Cboe C2 Exchange, Inc. and Cboe Exchange, Inc.; Financial Industry Regulatory Authority, Inc.; Investors Exchange LLC; Long-Term Stock Exchange, Inc.; MEMX LLC; Miami International Securities Exchange LLC, MIAX Emerald, LLC, and MIAX PEARL, LLC; NASDAQ BX, Inc., Nasdaq GEMX, LLC, Nasdaq ISE, LLC, Nasdaq MRX, LLC, NASDAQ PHLX LLC, and The NASDAQ Stock Market LLC; and New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., NYSE Chicago, Inc. and NYSE National, Inc.

<sup>&</sup>lt;sup>2</sup> The Limited Liability Company Agreement of Consolidated Audit Trail, LLC is the CAT NMS Plan. Unless otherwise noted, capitalized terms are used as defined in Rule 613, in the CAT NMS Plan or in this letter.

<sup>&</sup>lt;sup>3</sup> A copy of the Q4 2023 QPR is available on the CAT NMS Plan public website at www.catnmsplan.com. <sup>4</sup> The Implementation Plan was filed with the Commission on July 22, 2020 and is available on the CAT NMS Plan public website at www.catnmsplan.com. Subsequent QPRs are also available on the CAT NMS Plan public website.

# CAT Q4 2023 Quarterly Progress Report

FILED JANUARY 30, 2024

	Implementation Plan Completion Date	Targeted Completion Date or Actual Completion Date <sup>1</sup>	Milestone/Interim Step <sup>2</sup>	Description of Any Variance From the IP	Other Factual Indicators <sup>3</sup>	Description of Status as of 12/31/2023 <sup>4</sup>
1	7/11/2022	5/31/2024	Row 6 of App. C-10(a) & Row 8 of App. C-10(a): Customer and Account Information – Production Environment Go-Live (All Industry Members)	It was announced on August 2, 2023 that the targeted completion date for full CAIS reporting compliance was extended to May 31, 2024.	<ul> <li>Deployed CAIS release regarding the IM Reporter validations and Reporter Portal to production on October 23, 2023. The release included fixes for the defects impacting validations, feedback, and IM Portal functionality.</li> <li>Published outstanding rejections feedback file schema on November 30, 2023.</li> <li>Deployed CAIS release regarding CAIS Regulator Portal to production on December 3, 2023. The release included fixes for the defects impacting the Regulator Portal.</li> <li>Published updated CAT CAIS</li> </ul>	<ul> <li>The Full CAIS Production Environment opened April 25, 2022 and it remains open.</li> <li>Industry Members have been required to report, and are reporting, required data to CAIS on a daily basis since November 7, 2022, consistent with interim reporting obligations.</li> <li>The remaining CAIS obligations for Industry Members are the May 24, 2024 deadline for Interim Obligation 4 (which relates to Industry Members' repair of all outstanding rejects and resolution of all outstanding material inconsistencies) and the May 31,</li> </ul>

#### **APPENDIX C MILESTONES**

<sup>1</sup> The "Completion Date" indicates the targeted completion date for the milestone, unless the status for the milestone has been designated as "Completed." In that case, the "Completion Date" indicates the date by which the milestone was completed.

<sup>2</sup> To further enhance the publicly available information, the Participants have included additional details in this document to reflect certain interim steps not included in the Implementation Plan to complete implementation of the CAT. These interim steps are provided for informational purposes only and are not relevant for purposes of assessing the Participants' timely satisfaction of the Financial Accountability Milestones.

<sup>3</sup> For milestones that are in progress or have not been initiated, this will include the basis for making the adjustment and the impact of this adjustment on any other Implementation Milestone, and, if applicable, any other factual indicators that demonstrate the current level of completion with respect to the Implementation Milestone.

<sup>4</sup> This Quarterly Progress Report reflects activities by the Participants to meet the relevant milestones and interim steps. Additional information and metrics on Industry Member testing and readiness are provided in industry update meetings and related materials. *See* CAT Event Materials, *available at* <u>https://catnmsplan.com/events/materials</u>.

Implementation Plan Completion Date	Targeted Completion Date or Actual Completion Date <sup>1</sup>	Milestone/Interim Step <sup>2</sup>	Description of Any Variance From the IP	Other Factual Indicators <sup>3</sup>	Description of Status as of 12/31/2023 <sup>4</sup>
				technical specifications on December 21, 2023.	<ul> <li>2024 final Full CAIS compliance deadline (which adds the requirement to repair all rejections and resolve all material inconsistencies on a go forward basis within the Plan-established deadlines).</li> <li>The CAIS system accepts and validates the CAIS data submitted by Industry Members and provides Industry Members with initial feedback on data errors.</li> <li>Outstanding CAIS system issues present challenges for Industry Members with respect to error corrections and for regulators with respect to information available in the CAIS regulatory portal.</li> <li>Analysis of requirements, internal testing and deployment of various releases to address outstanding issues have been underway.</li> <li>Deployed CAIS releases that address outstanding issues (including the releases described in "Other Factual Indicators" column).</li> <li>Established timeline for the two remaining Full CAIS reporting</li> </ul>

Implementation	Targeted	Milestone/Interim Step <sup>2</sup>	Description of Any	Other Factual Indicators <sup>3</sup>	Description of Status as of 12/31/2023 <sup>4</sup>
Plan Completion	Completion		Variance From the IP		
Date	Date or				
	Actual				
	Completion				
	Date <sup>1</sup>				
					obligations referenced above to
					address these outstanding issues.

## PARTICIPANT MILESTONES

Implementation	Targeted	Milestones	Description of	Other Factual Indicators	Description
Plan Completion	Completion		Any Variance		of Status as
Date	Date or		From the IP		of
	Actual				12/31/2023
	Completion				
	Date				
		N/A			

	Implementation Plan Completion Date	Targeted Completion Date or Actual Completion Date	Milestones	Description of Any Variance From the IP	Other Factual Indicators	Description of Status as of 12/31/2023
1	7/31/2020	7/20/2020	FAM Period 1 Completion of Initial Industry Member Core Equity and Option Reporting, defined under CAT NMS Plan Section 1.1 as the reporting by Industry Members (excluding Small Industry Members that are not OATS reporters) of both: (a) equities transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information; and (b) options transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information.	N/A	N/A	Completed
2	12/31/2020	12/31/2020	<ul> <li>FAM Period 2</li> <li>Completion of Full Implementation of</li> <li>Core Equity Reporting, defined under</li> <li>CAT NMS Plan Section 1.1 as the point</li> <li>at which: <ul> <li>(a) Industry Member reporting</li> <li>(excluding reporting by Small</li> <li>Industry Members that are not</li> <li>OATS reporters) for equities</li> <li>transactions, excluding Customer</li> </ul> </li> </ul>	N/A	N/A	Completed

## **FINANCIAL ACCOUNTABILITY MILESTONES**

	Implementation Plan Completion Date	Targeted Completion Date or Actual Completion Date	Milestones	Description of Any Variance From the IP	Other Factual Indicators	Description of Status as of 12/31/2023
			Account Information, Customer- ID, and Customer Identifying Information, is developed, tested, and implemented at a 5% Error Rate or less and with sufficient intra-firm linkage, inter-firm linkage, national securities exchange linkage, and trade reporting facilities linkage to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, excluding linkage of representative orders, from order origination through order execution or order cancellation; and (b) the query tool functionality required by Section 6.10(c)(i)(A) and Appendix D, Sections 8.1.1- 8.1.3 and Section 8.2.1 incorporates the Industry Member equities transaction data described in condition (a) and is available to the Participants and			
3	12/31/2021	12/31/2021	to the Commission FAM Period 3 Completion of Full Availability and Regulatory Utilization of Transactional	N/A	N/A	Completed

Pl Co	nplementation an ompletion ate	Targeted Completion Date or Actual Completion Date	Milestones	Description of Any Variance From the IP	Other Factual Indicators	Description of Status as of 12/31/2023
			Database Functionality, defined under CAT NMS Plan Section 1.1 as the point at which: (a) reporting to the Order Audit Trail System ("OATS") is no longer required for new orders; (b) Industry Member reporting for equities transactions and simple electronic options transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, with sufficient intra-firm linkage, inter-firm linkage, national securities exchange linkage, trade reporting facilities linkage, and representative order linkages (including any equities allocation information provided in an Allocation Report) to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, is developed, tested, and implemented at a 5% Error Rate or less;			
			(c) Industry Member reporting for			

	Implementation Plan Completion Date	Targeted Completion Date or Actual Completion Date	Milestones	Description of Any Variance From the IP	Other Factual Indicators	Description of Status as of 12/31/2023
			manual options transactions and complex options transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, with all required linkages to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, including any options allocation information provided in an Allocation Report, is developed, tested, and fully implemented; (d) the query tool functionality required by Section 6.10(c)(i)(A) and Appendix D, Sections 8.1.1- 8.1.3, Section 8.2.1, and Section 8.5 incorporates the data described in conditions (b)-(c) and is available to the Participants and to the Commission; and (e) the requirements of Section			
4	12/30/2022	5/31/2024	6.10(a) are met. FAM Period 4 Completion of Full Implementation of	It was announced on August 2, 2023 that	<ul> <li>See completion of FAM 1, FAM 2 and FAM 3 for progress to completion of FAM 4</li> </ul>	The Full CAIS Production     Environment opened April 25,
			CAT NMS Plan Requirements, defined	the targeted	<ul> <li>FINRA retired OATS effective September 1,</li> </ul>	2022 and it remains open.

Plan Com Completion Date	geted Milestones npletion ce or Actual npletion ce	Description of Any Variance From the IP	Other Factual Indicators	Description of Status as of 12/31/2023
	under CAT NMS Plan Section 1.1 as t point at which the Participants have satisfied all of their obligations to bu and implement the CAT, such that al CAT system functionality required by Rule 613 and the CAT NMS Plan has been developed, successfully tested, and fully implemented at the initial Error Rates specified by Section 6.5(d)(i) or less, including functionali that efficiently permits the Participan and the Commission to access all CAT Data required to be stored in the Central Repository pursuant to Sectio 6.5(a), including Customer Account Information, Customer-ID, Customer Identifying Information, and Allocation Reports, and to analyze the full lifecycle of an order across the nation market system, from order origination through order execution or order cancellation, including any related allocation information provided in ar Allocation Report.	full CAIS reporting compliance was extended to May 31, 2024. y ts n n n al n	<ul> <li>2021</li> <li>Phase 2a has been fully implemented as of October 26, 2020</li> <li>Phase 2b has been fully implemented as of January 4, 2021</li> <li>Phase 2c has been fully implemented as of April 26, 2021</li> <li>Phase 2d has been fully implemented as of December 13, 2021</li> <li>The average overall error rate was less than 5% as of September 30, 2023 and remains less than 5% as of December 31, 2023</li> <li>The query tool functionality incorporates the data from Phases 2a, 2b, 2c and 2d and is available to the Participants and to the Commission</li> <li>With respect to Phase 2e: <ul> <li>The Full CAIS Production Environment opened April 25, 2022 and it remains open. Certain Industry Member Full CAIS reporting obligations have been delayed, but Industry Members have been required to report, and are reporting, required data to CAIS on a daily basis since November 7, 2022 (for additional details, see discussion in the "Description of Status as of 12/31/2023" column).</li> <li>Deployed CAIS release regarding the</li> </ul></li></ul>	<ul> <li>Industry Members have been required to report, and are reporting, required data to CAIS on a daily basis since November 7, 2022, consistent with interim reporting obligations.</li> <li>The remaining CAIS obligations for Industry Members are the May 24, 2024 deadline for Interim Obligation 4 (which relates to Industry Members' repair of all outstanding rejects and resolution of all outstanding material inconsistencies) and the May 31, 2024 final Full CAIS compliance deadline (which adds the requirement to repair all rejections and resolve all material inconsistencies on a go forward basis within the Planestablished deadlines).</li> <li>The CAIS system accepts and validates the CAIS data submitted by Industry Members with initial</li> </ul>

ImplementationTargeterPlanCompletCompletionDate or 2DateCompletDateDate	etion r Actual	Description of Any Variance From the IP	Other Factual Indicators	Description of Status as of 12/31/2023
			<ul> <li>IM Reporter validations and Reporter Portal to production on October 23, 2023. The release included fixes for the defects impacting validations, feedback, and IM Portal functionality.</li> <li>Published outstanding rejections feedback file schema on November 30, 2023.</li> <li>Deployed CAIS release regarding CAIS Regulator Portal to production on December 3, 2023. The release included fixes for the defects impacting the Regulator Portal.</li> <li>Published updated CAT CAIS technical specifications on December 21, 2023.</li> </ul>	<ul> <li>feedback on data errors.</li> <li>Outstanding CAIS system issues present challenges for Industry Members with respect to error corrections and for regulators with respect to information available in the CAIS regulatory portal.</li> <li>Analysis of requirements, internal testing and deployment of various releases to address outstanding issues have been underway.</li> <li>Deployed CAIS releases that address outstanding issues (including the releases described in "Other Factual Indicators" column).</li> <li>Established timeline for the two remaining Full CAIS reporting obligations referenced above to address these outstanding issues.</li> </ul>

	Order Completion Date	Targeted Completion Date or Actual Completion Date	Milestones <sup>5</sup>	Description of Any Variance From the Order	Other Factual Indicators	Description of Status as of 12/31/2023
1	7/31/2024	7/31/2024	Re-Processing of Corrected Data Received After T+5: Corrections received after T+5 are to be reprocessed, with the Participants' regulatory staff and SEC notified and informed as to how reprocessing will be completed	N/A	The targeted replay functionality was deployed for certain CAT Data on September 26, 2022. On November 2, 2023, the Commission issued an order granting exemptive relief from certain requirements of the CAT NMS Plan related to (1) online targeted query tool performance requirements; (2) requirements for lifecycle linkages timeframes; (3) requirements for re- processing of corrected data received after T+5; (4) requirements for SIP data linkage; (5) reporting requirements for port-level settings; (6) requirements for lifecycle linkages between customer orders and "representative" orders; and (7) requirements for Participant reporting of rejected orders ("November 2023 Order"). The relief granted in the November 2023 Order supersedes the relief granted in the 2022 Order and the 2023 Order. The November 2023 Order is effective as of November 20, 2023. <sup>6</sup> Quarterly Progress Reports with regard to this issue are no longer required per the November 2023 Order.	Completed

## **EXEMPTION MILESTONES**

<sup>5</sup> Securities Exchange Act Rel. No. 95234 (July 8, 2022) ("2022 Order"). See also Securities Exchange Act Rel. No. 97530 (May 19, 2023) (extending the exemptive relief granted in the 2022 Order) ("2023 Order").

Securities Exchange Act Rel. No. 98848 (Nov 2, 2023) ("November 2023 Order").

	Order Completion Date	Targeted Completion Date or Actual Completion Date	Milestones <sup>5</sup>	Description of Any Variance From the Order	Other Factual Indicators	Description of Status as of 12/31/2023
2	7/31/2024	7/31/2024	Participant Reporting of Rejected Orders: An order that a Participants receives, but then rejects, is a CAT Reportable Event, and that the receipt of that order and the time at which that order was received also must be reported pursuant to Section 6.3(d). Rejected orders that are reported to the Central Repository must be processed and assembled to create the complete lifecycle of each Reportable Event.	N/A	All Participants are reporting rejects as of May 22, 2023. A feasibility study was conducted regarding the linkage of rejected orders. Quarterly Progress Reports with regard to this issue are no longer required per the November 2023 Order.	Completed
3	7/31/2024	7/31/2024	Lifecycle Linkages Timeframes: The Plan Processor "must have completed initial data validation, made lifecycle linkages (i.e., completed processing and linkage of the initial transaction data) and communicated errors to CAT Reporters" by T+1 at noon	N/A	Quarterly Progress Reports with regard to this issue are no longer required per the November 2023 Order.	Completed
4	7/31/2024	7/31/2024	SIP Data Linkage: Linkage of SIP Data and CAT Data	N/A	Quarterly Progress Reports with regard to this issue are no longer required per the November 2023 Order.	Completed
5	7/31/2024	7/31/2024	Port Level Settings: Report port level settings as special handling instructions as part of Material Terms of an Order	N/A	Quarterly Progress Reports with regard to this issue are no longer required per the November 2023 Order.	Completed
6	7/31/2024	7/31/2024	Lifecycle Linkages Between Customer Orders and "Representative" Orders: Link all related order events from all CAT Reporters in the lifecycle of a representative orders	N/A	The CAT has the ability to process information linking customer orders and representative orders. Quarterly Progress Reports with regard to this issue are no longer required per the November 2023 Order.	Completed