

2024 FIA Industry-Wide Disaster Recovery Test

Summary Report

October 5, 2024



Executive Summary

The FIA Disaster Recovery Test is a collaborative initiative across the futures industry, designed to ensure business continuity. This industry-wide effort was coordinated among various entities and took place on **October 5**th, **2024**.

Test participants included 21 major U.S. and International futures exchanges and clearinghouses, 44 Futures Commission Merchants (FCMs), 15 U.S./Non-U.S. firms with other classifications, 7 prop trading firms, 8 third-party service providers, and a regulator. The exercise included FIA members and non-members alike.

The exercise was broadly considered a success, in that the primary objective to test connectivity and operation of systems under a simulated disruption scenario was performed and fulfilled by most organizations, even if issues were experienced and the result was not as expected.

Across the various exchanges and clearinghouses, between 50 and 100 percent of their member firms tested successfully, meaning that firms were able to fulfill, from end-to-end, the instructions outlined within exchange and clearing-provided test scripts. Most markets had success rates in the 90th percentile range.





Executive Summary (continued)

In testing, exchanges and clearinghouses demonstrated that their systems, processes, and procedures simultaneously worked well, communicating from back-up systems and sites. Participants also tested the "people-side" of their continuity capabilities and the resilience and recovery of systems infrastructure, while test orchestration, facilitation, and order entry were conducted from alternate work sites and data centers.

Test participation at reported alternate work sites were geographically dispersed within the United States, Canadian Provinces, and globally in countries within Asia, Europe and South America.

As in prior years, participants indicated that multiple departments were involved with the planning and execution of the test, and that separate (or the same) teams also staffed the SIFMA Disaster Recovery Test, which occurred on the same day as the FIA test in 2024.

The success of the disaster recovery test reflects the coordination and working relationships between a multitude of exchanges, clearinghouses, firms, and service providers – and maintains an established and ongoing forum for participants to discuss respective responses to systemic market disruptions.





Test Scope, Objectives, and Format

The <u>scope</u> of the disaster recovery test includes testing business continuance, process recovery, connectivity, and functionality between exchanges, clearinghouses, and member firms by:

- Verifying firms' ability to test from alternate work recovery sites
- Aiming to test DR-to-DR (firm back-up sites to exchange and clearinghouse back-up sites)
- Verifying connectivity and process recovery
- · Testing round-trip communications capabilities

Firms have indicated that the test helps them accomplish the following objectives:

- Exercise their business continuance/disaster resilience plans
- Identify internal and external single points of failure
- · Test other in-house applications and systems at the same time
- Tighten up and improve the documentation of their business continuity procedures
- Better understand the need for cross-training
- Test connectivity to exchange/clearinghouse/SEF DR sites





Test Scope, Objectives, and Format (continued)

As part of the exercise, participants carried out additional business continuity activities, including:

- Relocating staff and test management to alternate work sites
- Managing the test from alternate sites or home locations
- Failing-over missing critical systems and remaining in back-up mode for longer than the test duration
- Conducting other BCM activities such as cross training and updating relevant documentation and procedures

Participants were strongly encouraged to test from their backup systems and sites to fulfill the DR-to-DR test <u>format</u>, though, various configurations across firms and markets determine how this is carried out. The test is generally not scenario-based, but some markets may present their test in a scenario format.





2024 Participating Markets

The following markets participated in the 2024 FIA DR Test, providing customer support, scripts, and other preparation resources to their member firms for Test Day.

- Bitnomial Exchange
- Canadian Derivatives Clearing Corporation
- Cboe Futures Exchange
- Cboe SEF
- CME Group
- Coinbase
- Eurex
- Euronext
- Gulf Mercantile Exchange (Dubai Mercantile)
- ICE Exchanges
- ICE Clear Credit

- ICE Clear Europe
- ICE Clear Singapore
- ICE Clear U.S.
- ICE eConfirm Trade Vault
- MIAX Futures (MGEX)
- Montreal Exchange
- North American Derivatives Exchange
- Nodal Exchange
- Options Clearing Corporation
- Small Exchange





2024 Breakdown of Test Participation

Type:

•	Exchanges, Clearinghouses, SEFs	21
•	FCMs	44
•	Other classification (U.S. & Non-U.S. futures entities)	15
•	Prop Trading Firms	7
•	Service Providers	8
•	Regulatory	1

Regions:

- North America --- Canada, United States
 - o Connecticut, Delaware, Georgia, Illinois, Maryland, Minnesota, New Jersey, New York, Pennsylvania, Texas, Virginia
- Asia --- United Arab Emirates, India, Singapore
- Europe --- Germany, Italy, Poland, Spain, United Kingdom
- South America --- Argentina





2024 DR Test Schedule and Milestones

Activities and recurring participant calls ensured that preparation remained on track for Test Day.

- Jul 10 (WED) Initial Participant Kickoff Call
- Jul 26 (FRI) FIA Test registration opened
- Jul 31 (WED) OCC Test registration closed for RegSCI BC/DR Test
- Aug 3 (SAT) CME Group MQ Pre-Test
- Aug 14 (WED) Webinar, presentation by Exchange/Clearing organizations
- Sep 11 (WED) Participant Call
- Sep 14 (SAT) Pre-test Communications Testing (Included ICE) (SIFMA also pre-tested)
- Sep 21 (SAT) Pre-test Communications Testing (Included CME Group) (SIFMA also pre-tested)
- Sep 25 (WED) Participant Call
- Sep 27 (FRI) FIA Test registration closed
- Oct 4 (FRI) All-Hands Call (Day Before the Test)
- Oct 5 (SAT) 2024 FIA DR Test (SIFMA also tested)
- Oct 16 (WED) Post-mortem discussion





Feedback and Areas for Improvement

A post-test survey was distributed to participants on October 7th, 2024, with a summary from the 49 responses below. Thank you to all who participated and provided feedback!

Many participants reported a smooth test with no issues, however, several participants faced connection problems, unavailable markets, and delays in failover processes, with specific exchanges/clearinghouses having recurring delays.

Many participants found the <u>test day windows</u> to be adequate, with some suggesting earlier start times and graphical representations (charts) to better align failover timings. A few experienced delays due to infrastructure issues.

Participants generally found support from the exchanges and clearinghouses to be responsive and helpful. <u>Staffing and coordination</u> were also good, however, some experienced delays with specific exchanges/clearinghouses and suggested better preparation. A few firms were also unprepared, using incorrect credentials and making redundant requests.





Participants found <u>pre-testing</u> to be valuable for identifying and resolving network issues before the official test day, fine-tuning preparations, and ensuring successful participation. Some did not conduct pre-tests themselves due to using independent software vendors or due to internal issues. Suggestions included incorporating file exchanges with ping tests and offering more pre-test dates.

The live <u>status page</u> was found useful and timely by some participants, but others reported it was not always accurate or up to date. A few participants did not use the status page, relying on internal communications or direct calls instead. Some faced access issues due to firewall rules but still found the page somewhat useful. Participants suggested providing a URL in advance for whitelisting and firewall adjustments, or to use a hosted website, or a trusted platform like Microsoft Teams.





Participants had mixed experiences with <u>test scripts</u>, noting issues with format, clarity, and distribution, while others found them comprehensive. Participants also expressed a desire for the early posting of test scripts for better organization, and email notifications regarding availability. Concerns were raised about inconsistent script release times, and about coordination issues, when scripts were sent to prior contacts instead of current coordinators.

Regarding <u>registration</u> for the event, many participants suggested making it a one-step process and standardizing forms to reduce re-keying information, and some reported a smooth registration experience and felt no changes were needed. There were also suggestions to allow opting out of pre-tests (instead of opting in) and exchanges/clearinghouses noted the need for notifications to highlight changes when participants update registrations.

Participants suggested having a platform to contact market support and a central location to determine third-party testing schedules. Some recommended a system like SIFMA's for third-party service bureaus (selecting them from a dropdown), while others found the current process satisfactory. Overall, there was a noted need for better communication and coordination as some participants missed testing due to unawareness of their third-party providers' participation.



Participants generally found the FIA DR Test <u>webpage</u> useful for planning and appreciated the consolidated information, though some noted they had difficulty finding the webpage through search engines without a direct link.

FIA switched to using Zoom for <u>participant calls</u> in 2024. Participants found the Q&A and Chat features helpful for inquiries, and calls were better managed with quick identification and muting of noisy lines. However, some faced sound quality and connectivity issues. Microsoft Teams was suggested as an alternative.

FIA provided a <u>conference bridge</u> for communications on Test Day. Many participants also used internal bridges, and some teams managed multiple concurrent calls. Participants suggested better coordination and consolidation of conference bridges, as it was difficult to track down contacts from the exchanges/clearinghouses at times.





Exchanges and Clearinghouses reported various issues from their viewpoint, including reconnection issues with customer applications caching security tokens and other customer-side connection issues, but also issues on the exchange/clearing-side. In some cases, such connection/technological issues were not resolved within the testing window.

One exchange observed that test trades entered by firms had two different <u>clearing dates</u>, when it should have been one. The exchange learned that this was caused internally, where the clearing date was set incorrectly. However, a couple of firms also had hard-coded IPs, and therefore were unable to access the system during the exercise. Follow-up calls were held to discuss the cause and remedy.

Another exchange experienced <u>issues during pre-testing</u> that resulted in members being unable to test connectivity ahead of Test Day. These issues were only exposed in pre-testing, during failover to the backup site. Given this issue, the clearinghouse recognized that they must detect potential issues with infrastructure, whether primary or backup, and fix them as soon as possible. This includes better monitoring and detection mechanisms.

Based on observations of issues experienced on Test Day, and feedback received, we will aim to improve the DR Test in these areas in 2025.





Acknowledgements

The FIA would like to thank participants from the Exchanges, Clearinghouses, FCMs, third-party service providers, and other supporting entities, for their engagement in the preparation and execution of the 2024 FIA DR Test, including attendance on conference calls, adherence to deadlines, communications, and insights.

The first disaster recovery test took place on October 9th, 2004, in the wake of the attacks on September 11, 2001. The exercise has since expanded to additional exchanges, clearinghouses, FCMs, and service providers, and remains an extraordinary example of collaboration and cooperation across the futures industry.

Thank you to all who have contributed their time and resources to improve this important industry exercise over the years!





2025 FIA Disaster Recovery Test

Saturday, October 25, 2025

https://www.fia.org/fia/events/2025-fia-disaster-recovery-exercise





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