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REG SCI PLAYBOOK

As of October 10, 2018

Deloitte & Touche LLP was engaged by SIFMA to assist with the development of the 2018 Reg SCI BC/DR industry test materials.

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Agenda

- Overview
- Guiding Principles
- Test Timeline and Break Points
- Test Scope Outline
- Symbols and CUSIPs
- Pre Test and Post Test
- Other Considerations
- Appendix
  - DTCC Client Success Criteria
  - SCI Entities Notification Process
  - Coordinated Voluntary Test Date
  - Regulation SCI Rule requirements

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Overview

- Regulation SCI requires that each SCI entity designate members/participants (participating members) to take part in the annually scheduled Business Continuity and Disaster Recovery Plan test.

- SCI entities have established criteria for the designation of applicable members that are required to participate in the annual Business Continuity and Disaster Recovery Plan test.

- The objective of the 2018 test is that SCI entities conduct a functional and performance testing of ' business continuity and disaster recovery (BC/DR) plans with participating members to exercise and verify the ability to operate through a business continuity and/or disaster recovery event using backup sites, recovery facilities and backup communication capabilities.

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2018 Test - Guiding Principles

Topic	Approach
2018 test date	• The test will align with FIA test, SIFMA Classic and IIROC on Saturday **October 13th 2018**
Environments connectivity	• Participating members should be able to operate from their **production or DR environments** • Participating members who elect to operate from their production environments are required to conduct a separate connectivity test from their DR environment(s)
Designated Reg SCI contacts	• Reg SCI Entities notification to designated Reg SCI firms is included in the 2018 Reg SCI Playbook • Participating members developed & communicated Reg SCI distribution emails to all SCI Entities by SIFMA
Test scripts communication and distribution	• Reg SCI Entities are responsible for communicating test scripts and other test requirements to their respective participating members • Those Reg SCI Entities with public test scripts provided participating members with the address of a dedicated location on their website which houses all REG SCI communications, including test scripts
Connectivity testing	• Connectivity testing is highly recommended to limit issues observed during prior years • Reg SCI Entities are responsible for providing connectivity testing prior to the 2018 Reg SCI BC/DR test; Connectivity test dates have been established and circulated to participating members (see appendix) • Entities will work directly with participating members to provide network connectivity information • Connectivity configuration used for pre-test must remain unchanged for 2018 Reg SCI BC/DR test date
Text Execution	• The 2018 annual Regulation SCI BC/DR test should not require manual intervention by participating member systems to execute the test (manual intervention refers to limited system or configuration changes)
Text Scope	• The 2018 test is designed to verify that Reg SCI entities are able to demonstrate that they can support the maintenance of fair & orderly markets in the event the Reg SCI entities' BC/DR plans are activated • The 2018 test is an industry coordinated test (as required by Reg SCI), but it is not an end-to-end industry integrated test; it is a test for each individual SCI Entity to test its own BC/DR environment(s) • The test is not systems capacity test; however the test should generate enough message traffic to support trading and dissemination of market data through the SIPs • The test is not a pass/fail exercise for the participating members. Some SCI members, based on their rulebook, will publish results[1]. Others will provide members with a scorecard outlining capabilities and issues • In the event of an unsuccessful test further analysis will be required to understand the root cause (i.e. is the issue on the participating member side, SCI entity, etc.)
Classic SIFMA Test	• The 2018 Regulation SCI BC/DR test is distinct from the classic SIFMA BC/DR test

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[1] OCC will publish results if asked by regulators

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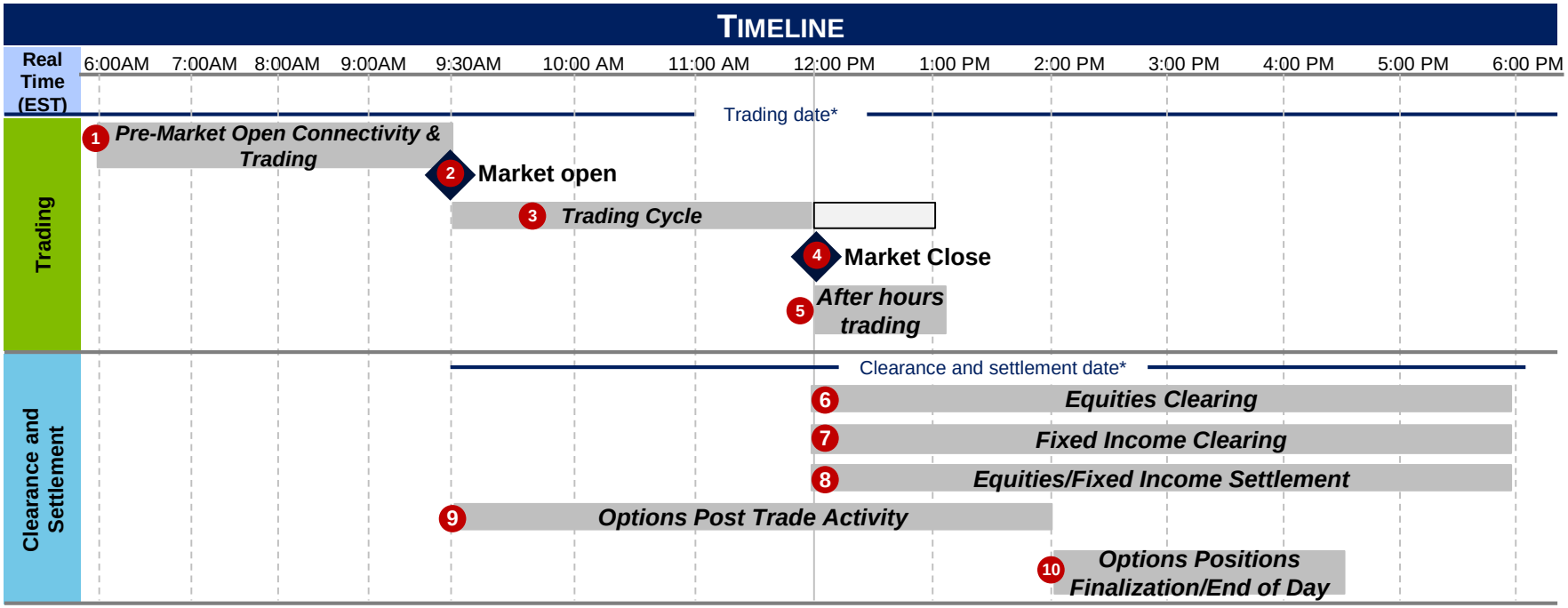
Proposed Test Timeline and Break Points

- Test Timeline and Breakpoints to follow the same test outline are prior years
- All exchanges and venues will follow a half trading day structure for the testing session



1. Exchanges to open their systems any time prior to market open
2. Coordinated Market Open across SCI entities - 9:30 AM ET
3. Short trading day cycle - 9:30 AM – 12:00 PM ET
   [For OCC Exchange Mock Trading Cycle and Encore Daily Activity 9:30 AM-1:00 PM]
4. Coordinated Market Close (Equities) – 12:00 PM ET
5. After hours trading - 12:00 PM – 1:00 PM ET
6. Equities Clearing – 12:00 PM – 6:00 PM
   - Accept trades from the Exchanges – trades will reject with invalid trade Date
7. Fixed Income Clearing 12:00 PM – 6:00 PM
   - Trades submitted and matched, settlement totals calculated
8. Equities/Fixed Income Settlement 12:00 PM – 6:00 PM
   - Deliver Orders and Payment Orders submitted and settled
   - CNS transactions and settlement totals processed
   - Fixed income settlement totals processed
9. Options Post Trade Activity – 9:30 AM – 2:00 PM
10. Options Positions Finalization / End of Day – 2:00 PM – 4:30 PM

- Exchanges may test additional functionality including IPO's limit up/limit down and trading halts
- DTCC will be able to accept transactions during the Clearance and Settlement window beginning at noon
- DTCC anticipates all 4 entities (Omgeo, FICC, NSCC, DTC) will be simultaneously during the clearing and settlement window

***Trade and Clearance and settlement dates**

- Trade date for Exchange Systems will be 10/13/2018
- Trade Date for the OCC Encore System will be 10/11/2018 (OCC to change date of 10/13/18 to 10/11/2018)
- OCC's Business/Trade/Clearance date will be 10/11/2018
- OCC's settlement date will be 10/15/2018
- Input transaction settlement date for DTCC entities will very by test

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Test Scope Outline - Participating Members

The objective of the test scope outline is to provide consistent detail for the execution of the test as well as consistent set of requirements

Participating Members Test Summary

- Conduct the test from their production or DR environments
- Submit a representative sample of daily trade transactions to exchanges
- Work with Reg SCI entities to determine communication protocols
- Cover all in-scope product types
- Clean all test data from systems prior to Monday market open

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Test Scope Outline - Exchanges

The objective of the test scope outline is to provide consistent detail for the execution of the test as well as consistent set of requirements

Exchanges Test Summary

- Conduct trade matching
- Transmit matched trades to clearing agencies to demonstrate connectivity to the clearing agency (NSCC will reject the trades at the CDTS gateway and a reject message will be transmitted back to the exchange over FIX connections)
- Receive and verify messages (pended/rejected trades and execution) if applicable
- Clean all test data from systems prior to Monday market open

Note: Exchanges to communicate additional functionality including IPO's limit up/limit down and trading halts

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Test Scope Outline - Clearing Agencies

The objective of the test scope outline is to provide consistent detail for the execution of the test as well as consistent set of requirements

Clearing Agencies Test Summary

NSCC

- NSCC simulate trade executions on behalf of the exchanges
- Participating members access NSCC to inquire on trade data submissions that NSCC would simulate on behalf of the exchanges via web screens or automated output; to validate data & receive output from DTCC

OCC

- Exchanges will:
  - Transmit matched trades to OCC for processing throughout the mock trading cycle to OCC in real time
  - Submit balance sets and balance trades with OCC at close of Mock Trading Lifecycle
  - Receive and verify outbound DDS through connections to OCC's DR environment
  - Purge all test data from systems prior to market open for Monday
- Firms will:
  - Submit post trade transactions to OCC utilizing the communication protocols normally used in production (External Encore, Real-time MQ, Batch SFTP or Batch NDM)
  - Receive and verify outbound DDS through connections to OCC's DR environments
  - Access on-demand and core reports through External Encore
  - Purge all test data from systems prior to market open for Monday

Fixed Income Clearing (FICC)

- Trades submitted and matched, settlement totals calculated

Omgeo

- Trades submitted and matched/affirmed

DTC settlement test:

- Deliver Order and Payment Order submitted; processed; and submitted for settlement

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Test Scope Outline - SIPs

The objective of the test scope outline is to provide consistent detail for the execution of the test as well as consistent set of requirements

Test Summary

SIP - NASDAQ

- The NASDAQ SIP (UTP) will be available from both Carteret and Cermak
- The system of record is the binary version of the SIP feed which will be available during the Reg SCI and Industry BCP/DR test

SIP -SIAC

- The OPRA SIP and CTS/CQS SIP will be available in Cermak
- Firms can contact connectivity@nyse.com for any questions on connecting to DR in Cermak
- General questions on SIP support can be addressed to (cqs-cts-opra@siac.com)

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Test Scope Outline - FINRA

The objective of the test scope outline is to provide consistent detail for the execution of the test as well as consistent set of requirements

Test Summary

FINRA will create test scripts for each facility and send them to the firms who have been identified to test. Testing will include the following FINRA facilities:

- **TRACE** (Fixed Income – Corporate & Agency Debt, Securitized Products and treasuries)
- **ORF** (Over the Counter Equities)
- **NY and Nasdaq TRF** (for firms who report NMS trades to the TRFs)
- **OTCBB** (Over the counter Bulletin Board quoting)
- **OATS** (NMS stocks and OTC equity securities)

Note: Test scripts were distributed to each designated firm for their respective facilities on 6/7/2018

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Equities and Options Symbols and CUSIPs

- Production or Test Symbols will be used for trading
- Test Symbols will be used for clearing (minimum of one test symbol)
- Testing using production symbols is encourage using the below symbols to support triggering market infrastructures/SIPs. It is noted that testing is not limited to the production symbols below
- Production data will be used by FINRA for OTC equities testing (FINRA will accept any valid production symbol)

Production Symbols*

#	Symbol
1	CSCO
2	F
3	MSFT
4	GE
5	BAC
6	SPX (CBOE proprietary product)
7	SPXW (CBOE proprietary product)
8	VIX (CBOE proprietary product)

Test Symbols

#	Exchange	Symbol
1	BATS	ZBZX
2	BATS	ZTEST
3	BATS	ZVZZT
4	BATS	ZWZZT
5	NASDAQ	ZJZZT
6	NASDAQ	ZWZZT
7	NASDAQ	ZXZZT
8	NYSE	NTEST Z (NTEST.Z Comstock)
9	AMEX	ATEST Z (ATEST.Z Comstock)
10	ARCA	PTEST Z (PTEST.Z Comstock)
11	IEX	ZIEXT
12	IEX	ZEXIT
13	IEX	ZXIET

*** Not Comprehensive - SCI entities may require specific Options to support their testing**

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Equities Symbols and CUSIPs - FINRA Securities List

#	FINRA Reporting Facility	Symbol	CUSIP
1	**ORF** (non clearing test cases)	SWRAY	
2		PPCB	
3		FLEW	
4		DASTY	
5		BUDFF	
6		KNMCY	
7	**TRACE: TS**	TSRYS4635339	912796QL6
8		TSRYS4684944	912796RA9
9		TSRYS4622555	9128284L1
10		TSRYS4494557	912833PB0
11		TSRYS4620372	9128284H0
12	**TRACE: CA**	TEVA4384553	88167AAE1
13		FMCC4386400	3134G92X4
14		BCS4586230	06746P357
15		CHRC4298806	775657AJ8
16	**TRACE: SP**	COF4269504	3935053P5
17		SLNO3612001	81619PAD9
18		GNMA4708792	38380YZ57
19		FMCC4364001	3128MJYM6
20		FNMA3522428	01F0306B9

#	FINRA Reporting Facility	Symbol	CUSIP
21	**NY TRF, NQ TRF**	ALLY	02005N100
22		CAT	149123101
23		NKE	654106103
24		AAPL	037833100
25		EBAY	278642103
26		NFLX	64110L106
27	**OTCCBB**	SGBG	
28		VTGFF	

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SCI entities test scripts

BOX

- BOX will communicate the test scope and framework to designated SCI participants.

Cboe Exchanges (Cboe Options, BYX, BZX, EDGA, EDGX and C2)

- Link to test plan: http://cdn.batstrading.com/resources/schedule_update/2018/2018-SIFMA-and-Reg-SCI-BCP-DR-Test-Plan.pdf

CHX

Link to CHX test script (scroll to Jul 17, 2018 notification date)

DTCC

- Link to test script: test scripts will be shared and tailored to DTCC's designated participants

FINRA

- Test scripts were distributed to each designated firm for their respective facilities on 6/7/2018
- FINRA's test scripts are confidential and will only be shared with FINRA's designated participants

IEX

- Link to IEX 2018 playbook

MIAX Exchanges

Link to MIAX Exchanges test script

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SCI entities test scripts

NASDAQ Exchanges

- Nasdaq Exchanges equities & options test alerts
- Link to NASDAQ Exchanges Equities test details & Options test details

NYSE Group

- Link to NYSE Group test script

OCC

- Individualized test strategies will be developed for each registered participant tailored to individual business models.
- OCC Testing requirements are posted on Infomemo 42709 and Infomemo 43189

OTC Markets

- OTC Markets' test scripts are confidential and will only be shared with designated participants

SIFMA Classic Test

- SIFMA Classic Test scripts vary depending on the scope of testing offered by each test entity, an overview of test scope is available in the Summary of Components spreadsheet on the SIFMA test site

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Other Considerations

Connectivity

- SCI entities to work with participating members to define communication protocols in-scope

2018 Test Day Connectivity Availability

- SCI entities will have connectivity available starting form the following times on test day (10/13/2018):

SCI Entity	Test Date (10/13/2018) Connectivity Availability	Comments
NYSE Group	8:30 AM ET	Planned schedule for all NYSE Platforms on the October 13, 2018 test will be: • 8:30 AM ET - Cermak DR site available for connectivity • 9:00 AM ET - Pre-open session begins • 9:30 AM ET - Market open • 12:00 PM ET - Market close
FINRA	8:00 AM ET	
CHX	8:30 AM ET	7:30am (CST)
Cboe Options	8:30 AM ET	
BOX	9:00 AM ET	
IEX	8:00 AM ET	
OCC	8:30 AM ET	Email communication will be issued by OCC prior to connectivity availability
MIAX Exchanges	8:00 AM ET	
OTC Markets	9:00 AM ET	
NASDAQ Exchanges	8:00 AM ET	
DTCC	12:00 PM ET	Email communication will be issued by DTCC prior to connectivity availability and if there are any delays
BYX/BZX/EDGA/EDGX/C2	8:30 AM ET	

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Other Considerations (contd')

Orders

- Average number of shares is used with a minimum of 2 orders (no max)

Registration

- The 2018 Regulation SCI BC/DR test is distinct from the classic SIFMA BC/DR test
- Registration to the 2018 Regulation SCI BC/DR test is done by notification from the SCI entities – see Appendix for 2018 notification process

Success Criteria

- DTCC has outlined the capabilities, designee activity and evidence for inbound and outbound activity with FICC, NSCC, DTC and Omgeo which will be used to determine whether testing has been successful (see chart on Page 20)
- OCC has documented Success Criteria in information memo's Infomemo 42709 and 43189 and it will be documented in each participants confirmed test strategy.

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Pre Test and Post Test Requirements and Guidelines

	DTCC	OCC	IEX	NYSE Group*	NASDAQ Exchanges	FINRA**	BOX
Availability for Pre Testing	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability for Post Testing	N/A	Yes – validation of prod to prod connectivity once testing is complete and OCC production environment is back up	Yes – connectivity testing only	No	Will be made available upon request		No
Pre- Testing Required	Yes	Yes	Highly Recommended	Strongly recommended	Yes	Strongly recommended	Yes
Post - Testing Required	N/A	No (Optional)	No	No	No		No
Connectivity Testing Required	No	Yes	Highly recommended	No	No		Yes
Pre Test Contact Information	**Kevin Hanley,** 212-855-8092 **khanley@dtcc.com**	**Karen Glad** 312-322-2041 occDRtest@theocc.com	**Market Operations** marketops@iextrading.com; 646-343-2310 **Technology Operations** sre@iextrading.com; 646-343-2200	**Serge Sheynkman** 212-894-5446 serge.sheynkman@theice.com **Chris Loonam** 770-857-2718 chris.loonam@theice.com	**Trading Services** tradingservices@nasdaq.com	**Ron Miller- Primary:** ron.miller@finra.org ; 212 858-5178 **FINRA Product Management- Backup:** finraproductmanagement@finra.org	**BOX Maret Operations Center** 866-768-8845 boxmoc@boxoptions.com
Reg SCI Pre Testing Dates	• **8/18/2018**	• **7/14/2018** • **8/11/2018** • **9/15/2018**	• **9/15/2018** • 10/06/2018	• **9/15/2018** • 10/06/2018	• **9/15/2018** • 10/06/2018	• **9/15/2018**	• **9/15/2018** • 10/06/2018
Comments on Reg SCI Pre Testing	Pretest is highly recommended for designees	Mandatory Pre-Testing for all OCC participants and will consist of validating connectivity	N/A				N/A
Post Reg SCI Test Confirmation	Email validation required per test script	Email indicating completion of input & output & test success	Not required	Completed Checklist by Email required per Test Script	Reg SCI participants to fill out the **checklist of activities** return via email to **subscriber@nasdaq.com**. Can be done on Monday	Not required	Not required
Reg SCI Post Testing Dates			On request		Will be made available upon request		N/A
Comments			N/A				Yes

* Includes NYSE National (NSX)
** Applies to all FINRA facilities and products including Fixed Income and TRACE for Treasuries

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Pre Test and Post Test Requirements and Guidelines

	CHX	MIAX Exchanges	OTC Markets	Cboe Options	BYX/BZX/EDGA/EDGX/ C2
Availability for Pre Testing	Yes 7:00am CT to 9:30am CT	Yes	No	Yes	Yes
Availability for Post Testing	As needed	No	No		N/A
Pre- Testing Required	Strongly recommended for CHX Required Participants	Strongly recommended	No	Strongly recommended	Strongly recommended
Post - Testing Required	N/A	No	No		N/A
Connectivity Testing Required	During 9/15/2018 Pre-Test	Yes	N/A	Yes	No
Pre Test Contact Information	**Christine Martuscello** 312-663-2975 cmartuscello@chx.com	**Trading Operations** TradingOperations@MIAXOptions.com (609) 897-7302	**Bart Krezalek** bart@otcmarkets.com 212-896-4475 **Vlad Brodsky** vlad@otcmarkets.com	**Dushone Embrey-Thomas** - 312-786-8816 embreyd@cboe.com **Todd Furney** -312-786-7824 furneyt@cboe.com **Matt Danaher** 312-786-8810 **API**-api@cboe.com 312-786-7300	**Cboe Trade Desk** 913-815-7001 tradedesk@cboe.com
Reg SCI Pre Testing Dates	• **9/15/2018**	• **9/15/2018** • 10/06/2018	• **9/15/2018** • 10/06/2018	• **9/15/2018** • 10/06/2018	Offer DR connectivity testing at any time. Participate in connect. testing on **9/15 & 10/06/18**
Comments on Reg SCI Pre Testing	n/a	Telnet testing to the MIAX DR environments will be available beginning Monday, October 1, 2018			Voluntary connectivity pre-testing occur any time. Cboe NOC & Trade Desk support available to address connectivity issues on 9/15 & 10/06
Post Reg SCI Test Confirmation	Respond to CHX post test questionnaire	Contact trading Operations when complete	N/A	Email help desk upon completion – per test script	Not required
Reg SCI Post Testing Dates	n/a			Yes	N/A
Comments	n/a	Details can be found in the 4/4/18 Alert, "MIAX Options & MIAX PEARL-Reg SCI/SIFMA BCP Test Plan - October 13, 2018". Update to be published in September with bid-offer details for the 10 options MIAX will focus on during the test. Note: MIAX will open all Options listed in its production system at test time.		Refer to - http://cdn.batstrading.com/resources/schedule_update/2018/Reminder-2018-SIFMA-FIA-and-Reg-SCI-BCP-DR-Test-Plan.pdf for complete details.	Refer to - http://cdn.batstrading.com/resources/schedule_update/2018/Reminder-2018-SIFMA-FIA-and-Reg-SCI-BCP-DR-Test-Plan.pdf for complete details. Will send individual notification by 7/15 to required participants.

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Appendix

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RegSCI DR Test – DTCC Client Success Criteria

SCI Entity	Inbound to DTCC*			outbound from DTCC			Criteria
	Capabilities	Designee Activity	Evidence	Capabilities	Designee Activity	Evidence	
FICC	FICC will enable the following capabilities for data submission: • Web Interface • File Interface (FTP/NDM) • MQ Interface	Designees to submit trade input using one of the following interfaces: • Web Interface • File Interface (FTP/NDM) • MQ Interface	Each Designee will submit evidence (Screenshots) for inputs being sent to FICC	FICC will enable the following capabilities for data inquiry: • Web Interface • File Interface (FTP/NDM) • MQ Interface	Each designee can confirm their capability in one of 2 ways: 1. Receipt of automated machine readable output from FICC, or; 2. Verification of FICC data processing through the FICC Web Interface, File Interface, or MQ interface.	Each designee will need to submit evidence for at least one of the following: 1. Screen shot of the receipt date/time of the message or file sent by FICC to the designee; or; 2. Screen shot of result of data processing.	Firms are able to submit evidence for successful receipt of 1 Input and 1 output transaction
NSCC	NSCC will submit transactions on behalf of Designees via a FIX simulation process. Exchanges to submit trades to NSCC (UTC) which will reject with an invalid trade date via FIX	Exchanges to send inputs using FIX interface	Each Exchange will need to submit evidence (screenshots) of trade rejections	NSCC will enable the following capabilities for data inquiry: • Web Interface (Settlement) • File Interface (FTP/NDM) • MQ Interface • FIX	Each designee can confirm their capability in one of 2 ways: 1. Receipt of automated machine readable output from NSCC, or; 2. Verification of NSCC data processing through the Settlement Web Interface, File Interface, FIX or MQ interface.	Each designee will need to submit evidence for at least one of the following: 1. Screen shot of the receipt date/time of the message or file sent by NSCC to the designee; or; 2. Screen shot of pre and post data processing for the test transaction	Firms are able to submit evidence for successful receipt of 1 Input and 1 output transaction
DTC	DTC will enable the following capabilities for data submission: • Web Interface • File Interface (FTP/NDM) • MQ Interface	Designees to send inputs using one of the following interfaces: • Web Interface • File Interface (FTP/NDM) • MQ Interface	Each designee will need to submit evidence (Screenshots) for inputs being sent to DTC	DTC will enable the following capabilities for data inquiry: • Web Interface • File Interface (FTP/NDM) • MQ Interface	Each designee can confirm their capability by validating the settlement figures through: the Settlement Web Interface, File Interface, or MQ interface.	Each designee will need to submit evidence for at least one of the following: 1. Screen shot of the receipt date/time of the message or file sent by DTC to the designee; or; 2. Screen shot of pre and post data processing for the test transaction	Firms are able to submit evidence for successful receipt of 1 Input and 1 output transaction
Omgeo Note - All Omgeo references should be changed to ITP (Omgeo)	Omgeo will enable the following capabilities for data submission: • Web Interface • File Interface (CCF/MTI) • MQ Interface • FIX	Designees to send inputs using one of the following interfaces: • Web Interface • File Interface (CCF/MTI) • MQ Interface • FIX	Each designee will need to submit evidence (Screenshots) for inputs being sent to Omgeo	Omgeo will enable the following capabilities for data inquiry: • Web Interface • File Interface (CCF, MTI) • MQ Interface • PTS	Each designee can confirm their capability in one of 2 ways: 1. Receive automated machine readable output from Omgeo, or; 2. Validate the matched trade through: the Web Interface, File Interface, MQ interface or PTS.	Each designee will need to submit evidence for at least one of the following: 1. Screen shot of the receipt date/time of the message or file sent by Omgeo to the designee; or; 2. Screen shot of pre and post data processing for the test transaction	Firms are able to submit evidence for successful receipt of 1 Input and 1 output transaction

* - Inbound processing for NSCC is out of scope for 2018 since exchanges are not participating

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2018 Test – SCI Entities Notification Process

SCI Entity	Testing details	Testing notice	Confirmation	Date	Comments
NYSE Group*	See participation requirements	Sent	Required	3/13/2018	Testing criteria, notification schedule, and contact information sent to all NYSE subscribers
FINRA**	See selection criteria Reg. Notice 18-09	Sent	Required & Received	4/19/2018 & 4/20/2018	(1) Designation notification letters sent to all qualifying participants on 4/19 & 4/20 (2) FINRA asked for updated contract info. (3) Distributed all test scripts, across all facilities, on 6/7 to designated firms
CHX	See customer service notice	Sent	Required		CHX required participants notified of their obligation to participate (4/13). Notice published on CHX website stating that all designated CHX required participants for the 2018 Reg SCI test have been notified. Test script are on website & sent individually to required CHX participants
Cboe Options	See participation requirements	Sent	Required		
BOX		Sent	Not Required		Sent individual notification on Monday 7/2
IEX	See Regulatory Circular 2018-0001 and Trading Alert	Sent	Not Required	1/8/2018	3% or more of executed volume on IEX threshold test over a trailing period. Notified designated testers on 4/6. Trading alert and playbook disseminated on 7/17
OCC	See Infomemo 42709	Sent	Required	11/30/2017	Refer to Infomemo 42709 and 43189 for testing details
MIAX Exchanges	See participation notification	Sent	Not Required	4/4/2018	
OTC Markets	See comments	N/A	N/A		Test plans will be distributed individually to all entities who have been identified as required to test
NASDAQ Exchanges	See equities & options markets participation notification & Equities test details & Options test details	Sent	Will follow-up to acknowledge	2/26/2018	Test notices sent on 2/26; Nasdaq alerted test details on July 23
BYX/BZX/EDGA/ EDGX/C2	See participation requirements	sent	Not Required	8/8/2018	Provided notification to all required participants prior to 7/15/18. Questions about qualification can be directed to SCIQuestions@cboe.com.
DTCC		Sent	Not Required	8/28/2017	DTCC across all 4 entities, has individually confirmed participation and testing requirements requirements with Designees.

* Includes NYSE National (NSX)
** Applies to all FINRA facilities and products including Fixed Income and TRACE for Treasuries

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2018 Test – Coordinated Voluntary Test Date

- Coordinated voluntary pre-Reg SCI BD/DR test date is **9/15/2018 (Primary)** and **10/06/2018 (Secondary).**
- A few SCI entities will not be available that date and are providing their test in an alternative date

					Primary			Secondary		
SCI Entity	**14- Jul**	**11-Aug**	**18-Aug**	**8-Sept**	**15-Sep**	**22-Sep**	**29-Sep**	**6-Oct**	**Test Date Connectivity Availability**	**Comments**
NYSE Group*					✓			✓		* CTA SIP will support testing on all three dates
FINRA**					✓			--	--	
CHX					✓			--	--	
Cboe Options					✓			✓	8:30 AM ET	
BOX					✓			--	--	
IEX					✓			✓	8:00 AM ET	Available to offer pretest 8/18, 9/8 & 9/15
OCC	✓	✓			✓			--		
MIAX Exchanges					✓			✓	8:30 AM ET no helpdesk	back-up date only in the event there are issues on September 15th
OTC Markets					--			--	--	
NASDAQ Exchanges					✓			✓	8:00 AM ET	
DTCC			✓		--			--	--	8/18 DTCC test date
BYX/BZX/EDGA/EDGX/C2	**By design BYX, BZX, EDGA, EDGX, BZX Options, EDGX Options, and C2 Options offer connectivity testing to DR sessions at any time**								8:30 AM ET	
Global Issues			***Options Expiry date***			***Options Expiry date/SIP Failover***		***Proximity to Test date***		

* Includes NYSE National (NSX)
** Applies to all FINRA facilities and products including Fixed Income and TRACE for Treasuries

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Regulation SCI Rule requirements

- An SCI entity's BC/DR plan, including its backup systems, each SCI entity shall: (a) establish standards for the designation of those members or participants that the SCI entity reasonably determines are, taken as a whole, the minimum necessary for the maintenance of fair and orderly markets in the event of the activation of such plans; (b) **designate members or participants** pursuant to the standards established and **require participation** by such designated members or participants in **scheduled functional and performance testing** of the operation of such plans, in the **manner and frequency specified by the SCI entity**, provided that such frequency shall not be less than once every 12 months; and (c) **coordinate** the **testing** of such plans **on an industry- or sector-wide basis** with **other SCI entities** [Regulation SCI Rule 1004 and FAQs]

- Conduct the **initial functional** and **performance testing** of **BC/DR plans** with designated members or participants no later than November 2, 2016 [Regulation SCI FAQs]

- SCI entities are **not required to conduct all functional** and **performance testing** at once and in coordination with other SCI entities all at the same time…. if, to meet the requirements of the rule, a single annual test cannot be properly conducted, **SCI entities have flexibility to design their testing to include**, for example, **weekend testing** and **testing** in **segments** over the course of a year [SCI Adopting Release and FAQ's]

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