



Circular

16 May 2018

SGX INDUSTRY-WIDE BUSINESS CONTINUITY PLANNING (“BCP”) EXERCISE ON SATURDAY, 7 JULY 2018

We like to provide an update on the SGX Industry-Wide Business Continuity Planning (“BCP”) Exercise scheduled on Saturday, 7 July 2018.

This exercise is important for both SGX and market participants to validate their respective abilities to recover and operate its critical business functions, IT systems and linkages in the event of a SGX data centre failover scenario. All Singapore-based Securities and Derivatives Trading, and Clearing Members are required to participate in this exercise.

Please note that SGX will not schedule a pre-BCP connectivity test this year.

Exercise Scope

SGX will simulate an intra-day failure at its Primary Data Centre (“PDC”). Market participants will be required to connect their production sites to SGX’s backup systems at its Secondary Data Centre (“SDC”) and perform functionality tests.

Activities & High Level Timeline

Please refer to [Appendix A](#) for Activities and High Level Timeline.

Market Participants are requested to standby resources to participate in the exercise from 1.45pm onwards on Saturday, 7 July 2018. The scheduled completion time for the exercise is 8.00pm. This may be subject to adjustment during the day depending on how the test progresses.

Post-Exercise Verification on Sunday, 8 July 2018

After the completion of the exercise, SGX will restore all services back to its PDC and carry out systems normalization on 7 July night. Market participants are required to restore/normalise their systems back to production status and perform connectivity verification between 12:00pm and 2:00pm on Sunday, 8 July 2018.

Key points to note and follow-up

Before the Exercise

To participate in this year's exercise, you are required to register online at <http://www.sgxbcpsg.com> (available between 21 May 2018 and 29 June 2018). You are strongly encouraged to register early because SGX will send the test cases to your respective registered exercise coordinators by 31 May 2018.

SGX will conduct an industry briefing on Monday, 4 June 2018, between 3:30pm and 5:00pm at the SGX Centre Auditorium. SGX will provide more information regarding this exercise at the briefing and for market participants to seek clarification.

On the Exercise Weekend

Appendix B explains the Business Dates that will be simulated during the exercise weekend.

Market participants, who are not participating in the exercise, must not connect to SGX during the test period. In the event that these systems are connected, please ensure that all test data is removed before the start of the next trading day.

All market participants, those who have participated as well as those who did not participate, must verify connectivity to SGX's primary data centre between 12:00pm and 2:00pm of 8 July 2018.

Please ensure all necessary precautions are carried out at your end, such as backing up relevant configuration(s) and data, and carrying out any post exercise clean-up. These actions are critical in ensuring that business-as-usual operations on the next trading day are not impacted in any way.

Please note that any changes (e.g. password changes, order / trade data, clearing / settlement data) made during the exercise will not be updated in the SGX Production systems.

Please arrange for your technical teams to be on standby. SGX will need to reach out to them to obtain configuration details (such as IP address information) should you encounter any connectivity issues.

If you have any queries on this circular, please direct them to sgxbcpxercise@sgx.com or contact your respective Business Manager.

We appreciate your cooperation and look forward to your active support.

Stephen Lee
Head, Business Continuity Management
Risk Management

Appendix A: Activities and High Level Timeline for the “BCP” Exercise weekend (7-8 July 2018)

*All timings are indicative. The timing may be adjusted on the day based on the readiness of the systems or progress of the activities. Timing will be announced on the day via email / sms / Status Portal to the registered exercise coordinators.

Who	Activity Block Ref	Activity Block Description	High Level Timeline* (SG Time)	Remarks
A. Connect to PDC – Before failover to SDC (7 July)				
Market Participants	A1. Connect to PDC	Market participants connect to SGX's systems at SGX's Primary Data Centre (PDC)	<ul style="list-style-type: none">Available for members' connection from 1.45pmMembers to connect to SGX no later than 2.15pm	
Market Participants	A2. Submit orders at PDC	Market participants to submit orders and execute trades to simulate a trading day while connected to SGX systems at SGX's PDC.	<ul style="list-style-type: none">From 2.15pm onwards	
SGX	A3. Simulate failure at PDC	SGX will simulate a failure at its PDC (while the market participants are connected and submitting orders / executing trades).	<ul style="list-style-type: none">Between 2.30pm to 3.30pm	SGX will inform market participants that “SGX is experiencing issues”.
B. Failover to SDC (7 July)				
SGX	B1. Recovery at SDC	SGX systems recovery at SDC in progress	<ul style="list-style-type: none">Between 2.30pm to 5.30pm.	SGX will inform market participants that “no connection to Primary Data

Who	Activity Block Ref	Activity Block Description	High Level Timeline* (SG Time)	Remarks
				Centre” and is “failing over to the Secondary Data Centre”.
Market Participants	B2. Standby to Connect to SDC	Market participants to standby to connect to SGX’s SDC.	<ul style="list-style-type: none"> For Trading systems : from 3.45pm onwards For other systems : from 4.15pm onwards 	
Market Participants	B3. Connectivity verification to SDC	Market participants perform connectivity verification to SGX’s SDC.	<ul style="list-style-type: none"> Trading systems : from 4.00pm onwards for a duration of 30 minutes before Trading sessions “PRE-OPEN”. Other systems : from 4.30pm onwards 	
Market Participants	B4. Resume trading at SDC	<p>Trading Sessions “PRE-OPEN” till “CLOSE”.</p> <p>All market participants to complete the test cases provided.</p>	<ul style="list-style-type: none"> Trading systems : from 4.30pm onwards for a duration of 1-1.5 hour Other systems : from 4.30pm onwards 	
Securities Clearing / Back-office only	B5. Back-office processing at SDC	For Securities Clearing Members to complete back-office test cases.	<ul style="list-style-type: none"> Additional 30 minutes duration after Securities Trading session “Close”. 	
<ul style="list-style-type: none"> Exercise Close and Normalisation (7 to 8 July) 				

Who	Activity Block Ref	Activity Block Description	High Level Timeline* (SG Time)	Remarks
	C1. Exercise Close	Exercise Closes	<ul style="list-style-type: none"> Between 7.00pm to 8.00pm 	
Market Participants, SGX	C2. Normalise to production status	SGX normalise / restore systems to production status in PDC. Market Participants normalise / restore systems to production status	<ul style="list-style-type: none"> After SGX announces BCP Exercise closes. 	
C. Verify Production, ready for Monday (8 July)				
Market Participants	D1. Connectivity verification to PDC	Market participants perform connectivity verification to SGX's PDC to confirm readiness for next work day.	<ul style="list-style-type: none"> 8 July Sunday between 12.00pm to 2.00pm 	

Appendix B: Business Dates simulated during the exercise weekend (7-8 July 2018)

For Securities Members:

Systems	Business date simulated on 7-July	Business date simulated on 8-July
REACH-ST	7 July 2018 Saturday	9 July 2018 Monday
SGXPrime, PTS, PTS-API	9 July 2018 Monday	8 July 2018 Sunday
SFTP / SFG	7 July 2018 Saturday	8 July 2018 Sunday
COSMOS	9 July 2018 Monday	

For Derivatives Members:

Systems	Business date simulated on 7-July	Business date simulated on 8-July
Titan-DT, Titan-DC	9 July 2018 Monday	9 July 2018 Monday
Clearing Workstation 2	9 July 2018 Monday	9 July 2018 Monday
Titan-OTC	9 July 2018 Monday	9 July 2018 Monday
SFG	7 July 2018 Saturday	8 July 2018 Sunday