

Information Package on Connectivity Session and Market Rehearsals for Cash Market Gateway (CMG)

Version 1.0

August 2021

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Version History

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1 Introduction

1.1 Overview

Following the successful completion of the End-to-End Test, all Exchange Participants ("EPs") with Broker Supplied System ("BSS") and/or New Securities Trading Device (NSTD) are invited to participate in the following connectivity session and market rehearsals to verify the readiness before the Cash Market Gateway ("CMG") rollout.

Date	Mandatory / Optional	Task	Objective
24 July 2021	Optional	Connectivity Session (CS)	Validate the readiness of EPs' BSS and/or NSTD production configuration and connectivity with CMG.
7 August 2021	Mandatory	1 st Market Rehearsal (MR1)	Validate EPs' BSS and/ or NSTD in production configuration to perform normal business transactions and volume testing with CMG.
21 August 2021	Mandatory	2 nd Market Rehearsal (MR2)	Validate EPs' BSS and/ or NSTD capability for handling OTP-C/CMG failover from primary site to backup site.

CS is optional for participation. **MR1 and MR2 are mandatory for participation.** All EPs must satisfactorily complete the two MRs to ensure their BSS and NSTD can operate with CMG under normal operation and contingency arrangement. Failure to complete MRs may result in the EP's trading device being prohibited from connecting to CMG.

Subject to successful completion of the market rehearsals, EPs readiness and necessary regulatory approvals, HKEX will launch CMG in due course.

1.2 Market Data Arrangement for CMG CS and MRs

EPs who have subscribed to HKEX Orion Market Data Platform for Securities Market ("OMD-C") can have access to OMD-C feed during CS and MRs.

Some Information Vendors (IVs) and Application Service Providers (ASPs) may be able to redistribute OMD-C data to their EP customers conducting CS and MRs. EPs should check with their IVs and/or ASPs immediately for the arrangement if they want to receive market data.

Please provide contact information in the notification form if email notification for OMD-C site failover arrangement in MR2 is required.





2 Schedule and Activities for CMG CS and MRs

2.1 Tasks for EPs on CS and MRs

EPs are required to complete the following tasks for the CS and MRs:

Ta	sk	EPs	Deadline /	Reference
		Concerned	Execution Date	Documents
1.	Submit online Notification Form	All EPs	On or before 20 July 2021 (Tuesday)	OnlineNotificationForm forDesignation of contact person for CS and MRs-Participation of CS& Post Test Verification Session after CS and MRs-Contact information if email notification is required for OMD-
		Connectivity Se	ssion (CS) (optional	
1.	Execute rundown	Relevant EPs	24 July 2021	Appendix A – Activity
			(Saturday) 9:00am – 12:10pm	Rundown
2.	Conduct Post Test Verification Session after CS (optional) ^[1]	Relevant EPs	24 July 2021 (Saturday) 8:00pm to 9:00pm	<u>Appendix A – Activity</u> <u>Rundown</u>
	1 ^s	^t Market Rehear	sal (MR1) (mandato	ry)
1.	Execute rundown	All EPs	7 August 2021 (Saturday) 9:00am – 12:10pm	<u>Appendix B – Activity</u> <u>Rundown</u>
2.	Conduct Post Test Verification Session after MR1 (optional) ^[1]	Relevant EPs	7 August 2021 (Saturday) 8:00pm to 9:00pm	Appendix B – Activity Rundown
3.	Return feedback form	All EPs	On or before 9 August 2021 (Monday)	Feedback Form
	2 ⁿ		rsal (MR2) (mandato	ry)
1.	Execute rundown	All EPs	21 August 2021 (Saturday) 9:00am – 1:10pm	<u>Appendix C– Activity</u> <u>Rundown</u>
2.	Conduct Post Test Verification	Relevant EPs	21 August 2021 (Saturday)	Appendix C– Activity Rundown



Session after MR2 (optional) ^[1]		8:00pm to 9:00pm	
 Return feedback form 	All EPs	On or before 23 August 2021 (Monday)	Feedback Form

Note:

 The "Post Test Verification Session after CS", "Post Test Verification Session after MR1" and "Post Test Verification Session after MR2" are offered for EPs to validate that their BSS/NSTD have already reinstated for trading with OCG properly on the following trading day. Participation is optional and <u>prior registration</u> would be required.

EPs must return the feedback form for each of the MRs to HKEX on or before the following Monday after the respective MR.

2.2 CS Timetable

EPs are encouraged to take this opportunity to verify the readiness of their BSS/NSTD connectivity to CMG to ensure that they could participate in subsequent MRs smoothly. A half-day trading session will be arranged for the CS as below:

Session		
Pre-opening Session		
Continuous Trading Session (including two 5-minute Volume Test sessions for EPs to input orders as many as possible starting from 10:00am and 11:00am respectively).		
Volatility Control Mechanism (VCM) will be enabled from 9:45am to 11:40am for <u>VCM stocks</u>		
Closing Auction Session (CAS)		
Day Close		
Download closing price file and trade file via Electronic Communication Platform (ECP)		
Post Test Verification Session after CS (optional and applicable for EP's participation with prior registrations) Only Continuous Trading Session will be available and		
Communication Platform (ECP) Post Test Verification Session after CS (or applicable for EP's participation with prior regist		

2.3 MR1 Timetable

MR1 aims to provide an opportunity to EPs to simulate their trading activities in OTP-C/CMG environment and to verify their system operation and performance under high



volume situation initiated by EPs using their maximum throttle in OTP-C/CMG environment. A compressed full-day trading session will be arranged for the MR1 as below:

Time	Session		
9:00am – 9:30am	Pre-opening Session		
9:30am – 10:45am	 Morning Continuous Trading Session (including a 5-minute Volume Test session for EPs to input orders as many as possible starting from 10:00am). VCM will be enabled from 9:45am to 10:45am for <u>VCM stocks</u> 		
10:45am – 11:00am	Mid-Day Close / Extended Morning Session		
10:55am – 11:00am	Order Cancellation Period		
11:00am – 12:00noon	 Afternoon Continuous Trading Session (including a 5-minute Volume Test session for EPs to input orders as many as possible starting from 11:30am). VCM will be enabled from 11:15am to 11:40am for VCM stocks 		
12:00noon – 12:10pm	Closing Auction Session		
Upon completion of CAS Matching	Day Close		
12:30pm – 1:00pm	Download closing price file and trade file via ECP		
8:00pm – 9:00pm	 Post Test Verification Session after MR1 (optional and applicable for EP's participation with prior registrations) Only Continuous Trading Session will be available and VCM will NOT be enabled 		

2.4 MR2 Timetable

MR2 aims to provide an opportunity for EPs to simulate their trading activities and validate the capability of their BSS in handling system failover of OTP-C/CMG from primary site to backup site. A half-day trading session will be arranged for the MR2 as below:

Time	Session (OTP-C)
9:00am – 9:30am	Pre-opening Session
9:30am – 1:00pm	 Continuous Trading Session. VCM will be enabled from 9:45am to 12:40pm for <u>VCM</u> stocks



10:30am	Simulated OTP-C/CMG and OMD-C System Failure / Trading Interruption
11:30am	OTP-C/CMG and OMD-C at Backup site are ready for Connection from BSS & IVs
11:45am - 12:00noon	Order Cancel Session
12:00noon – 1:00pm	Continuation of Continuous Trading Session VCM will be enabled from 12:00noon to 12:40pm for <u>VCM</u> stocks
1:00pm – 1:10pm	Closing Auction Session
1:30pm	Download closing price file and trade file via ECP
8:00pm – 9:00pm	Post Test Verification Session after MR2 (optional and applicable for EP's participation with prior registrations) Only Continuous Trading Session will be available and Volatility Control Mechanism (VCM) will NOT be enabled



3 Guidelines for CMG CS and MRs

EPs are requested to make note of the following important points when they take part in the CS and MRs:

Before CS and MRs:

- All EPs are required to submit and complete the online Notification Form on or before 20 July 2021 to provide the designated contact person for OTP-C, confirm whether they will join CS and Post Test Verification Sessions for CS & MRs. If EPs wish to turn on CMG/NSTD during the CS and Post Test Verification Sessions, they are required to separately inform ET Trade Limited at 2880-8601 to make prearrangement and a fee will be chargeable by ET Trade Limited.
- For participation of MR1 and MR2, no prior registration is required.
- EPs should have completed the End-to-End Test to verify the readiness of their BSS software prior to their participation in the CS and MRs.

During CS, MRs and Post Test Verification Sessions:

- EPs must ensure that the correct configuration (if needed) of BSS software supporting CMG is activated before connecting to CMG. In this case, after conducting CS and MRs, EPs must also ensure that BSS software is reinstated for OCG to ensure no interruption to their trading activities on the following trading day.
- EPs are reminded to back up their BSS production database before the CS and MRs so that the database can be restored after the test to safeguard data integrity for the following trading day.
- The stock database as at the market open on 26 July 2021, 9 August and 23 August 2021 will be used for CS, MR1 and MR2 respectively.
- EPs are required to logon all CMG/BSS and CMG/NSTD (including Trading and Drop Copy sessions) by using the assigned Comp ID(s) and production password.
- EPs are requested to submit orders/ trades to simulate real-life trading activities. In the Volume Test sessions, EPs should base on their maximum entitled throughput capacity of each CMG session to submit orders to check if they would encounter any performance issue or response time issue.

In MR2 - For BSS/NSTD to handle system failover of OTP-C/CMG from primary site to backup site:

- OTP-C/CMG and OMD-C system failure and failover to backup site will be simulated at 10:30am.
- EPs should pay attention to HKEX's announcement of contingency arrangement via Exchange News. The Exchange News will be available through OMD-C. If Exchange News cannot be disseminated through OMD-C, HKEX will send the announcement via email to the designated contact person's email address as provided in the **Notification Form**.
- EPs should connect their CMG/BSS and CMG/NSTD (including Trading and Drop Copy sessions) to CMG backup site IP/port and sign on by using the assigned Comp ID and the production password <u>after</u> OTP-C/CMG and OMD-C system failure and failover to backup site.



• After trading is resumed at backup site, all EPs should verify successful connection of their trading devices by simulating real-life trading activities.

After CS and MRs:

- Upon completion of test, EPs are reminded to log off and terminate all sessions, then perform end-of-day procedures and clean up the transaction data (e.g. orders and trades) entered during the test from BSS (if applicable).
- After the testing, EPs are also reminded to clean up the next day requests for testing, if any, to ensure that these testing orders will not be carried forward to the production on the following trading day.
- All OMD-C messages disseminated during the CS and MRs should be treated as nonproduction data. OMD-C Clients should clean up these data after the test.



4 Typhoon, Extreme Conditions and/ or Rainstorm Arrangements

When Tropical Storm Warning Signal No. 8 (or above) or Extreme Conditions or the Black Rainstorm Warning Signal is issued/announced/hoisted, the following arrangements will apply:

Condition	Arrangement
In case Typhoon Signal No. 8 or above, Extreme Conditions and / or Black Rainstorm Warning is issued or continues to be in force anytime from 7:00am to before 9:00am	The scheduled activity of the day will be cancelled and will not be resumed for the rest of the day.
In case Typhoon Signal No. 8 or above or Extreme Conditions is issued on / or after 9:00am	The scheduled activity of the day will be terminated 15 minutes thereafter.
In case Black Rainstorm Warning is issued on / or after 9:00am	All scheduled activity will continue until completion.

Note:

1. In any case, all participating EPs should complete the appropriate day-end work including file/ database backup and restoration, system restoration/ fallback and so on to ensure there will be no interruption on the next trading day.



5 Support Hotline

Should EPs have any questions about CMG CS and MRs, please contact the following Support Hotlines:

	Telephone Number	Email Address
For BSS Support	2840 3351	bsssupport@hkex.com.hk
For General Enquiry	2840 3626	otpc@hkex.com.hk
For OMD-C Enquiry	2211 6558	IVSupport@hkex.com.hk
For ET Trade Support/NSTD Enquiry	2880 8601	cs@etnet.com.hk



Appendices

HKEX Appendix A – Activity Rundown for CMG CS on 24 July 2021

Time	Activities			
23 July 2021 (Friday)	– After Market Close			
After 5:00pm		Ensure all BSS/NSTD components (including network routers and workstations) are powered on after trading hours.		
		Ensure the production datab properly backed-up before the	base of in-house / back-office systems are	
		Prepare BSS for CMG compa CMG rollout.	atible version if EP has new BSS version for	
	<u>No</u>	otes:		
	•	on Friday (i.e. requests in following trading day, sinc	t any next day requests after trading hours ntended for submission to host on the e next day requests will be submitted to vill not be available on the following trading	
	•	After CS and Post Test Verificer reminded to clean up the net to clean the net to clean the net the net to clean the net to c	ication Session (if applicable), EPs are also xt day requests (if any) to ensure that these carried forward to the production on the	
24 July 2021 (Saturda	y) -	Applicable to EPs with prior	registration	
Before 9:00am	Lo	gon to OTP-C Host		
		r CMG/NSTD		
		Perform Administrator Logon	to ET Trade Speed Station.	
		Perform logon for CMG set	ssions (including Trading and Drop Copy	
		sessions) by using the production password.		
		Perform ET Trade Speed Station start-of-trading procedure		
	_	Perform Trader logon.		
		Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to <u>cs@etnet.com.hk</u> .		
	Ea			
		 Connect to CMG for all CMG sessions (including Trading and Drop Copy sessions). 		
		·		
Pre-opening Session (POS)				
9:00am – 9:30am		The Pre-Opening Session (PC	DS) consists of	
		- Order Input period	(9:00am - 9:15am)	
		- No-cancellation period	(9:15am - 9:20am)	
		- Random Matching period	(9:20am - 9:22am [random matching start time])	
		- Order Matching	(9:20am [random start time] – completion of order matching [variable end time])	
		- Blocking period	(upon completion of order matching [variable end time] - 9:30am)	
		Simulate real-life trading act volume) during the POS	ivities (in terms of transaction pattern and	



Time	Activities		
	Input manual trades during the POS.		
	Ensure that the BSS/NSTD has the ability to cope with various trading statuses during the POS.		
	□ Where applicable, verify the BSS/NSTD has the ability to correctly display Indicative Equilibrium Prices/Volume, Order Imbalance and Direction, Reference Price and Price Limits on the trading screen for the POS.		
Continuous Trading S	ession (CTS)		
9:30am – 12:00noon	The continuous trading session consists of		
	- Without VCM monitoring (9:30am - 9:45am)		
	- With VCM monitoring (9:45am - 11:40am)		
	- Without VCM monitoring (11:40am - 12:00noon)		
	There is the monitoring (There is a second of the second o		
	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session.		
	For Liquidity Provider and Market Maker:		
	- Submit market making orders or quotes on all their assigned products.		
	Where applicable, input orders on <u>VCM securities</u> to trigger VCM cooling- off period and input order (within and outside the price limit) during the VCM cooling-off period.		
	Where applicable, verify the BSS/NSTD has the ability to correctly display the reference price, upper and lower limits, start and end time of the VCM cooling-off period.		
	Please note that EPs who do not follow the testing guidelines or conduct frivolous activities during the CS may be suspended from further participation in the CS without prior warning.		
First Volume Test Ses	sion (CTS)		
10:00am – 10:05am	EPs should base on their maximum entitled throughput capacity of each CMG session to submit orders. EPs should verify that their trading facilities are able to support smooth order input operation during simulation of high volume market activities		
	EPs should report immediately any irregularities identified during the Volume Test Session to HKEX.		
Continuous Trading	Continuous Trading Session (CTS)		
10:05am – 11:00am	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session		
Second Volume Test			
11:00am – 11:05am			
Continuous Trading	Session (CTS)		
J			



Time	Ac	Activities	
11:05am – 12:00noon		Simulate real-life trading activition volume) during the continuous tra	es (in terms of transaction pattern and ading session
Closing Auction Sess	sion (CAS)		
12:00noon -12:10pm		The Closing Auction Session (CA - Reference Price Fixing Period	
		- Order Input Period	(12:01pm - 12:06pm)
		- No-Cancellation Period	(12:06pm - 12:08pm)
		- Random Closing Period	(12:08pm - 12:10pm
		- Order Matching	[random close time]) (12:08pm [random start time] - completion of matching [variable end time])
		- Day Close	upon completion of matching
		Simulate real-life trading activitivity volume) during the CAS.	es (in terms of transaction pattern and
		Input manual trades during the C.	AS.
		Amend/cancel some of the outsta CTS	nding limit orders carried forward from the
			handle the transition from the CTS to the
		- Ensure the BSS/NSTD has statuses during the CAS.	the ability to cope with various trading
		display Indicative Equilibriur	e BSS/NSTD has the ability to correctly m Prices/Volume, Order Imbalance and Price Limits and closing prices on the
		- Test the BSS/NSTD has the related to orders input during	ability to handle auction matching trades the CTS and CAS.
		- Verify the BSS has the ability	ot to carry forward quotes to the CAS: to withdraw large number of outstanding urities in an efficient and effective manner.
Day Close – upon con	nple	tion of matching	
12:10pm	For	or CMG/NSTD:	
		Perform trader logout.	
		Perform ET Trade Speed Station	
		Logout and terminate CMG sessi	
		Logout all ET Trade Speed Static	on.
	Fo	r CMG/BSS:	
		Logout and terminate CMG sessi	ion.
		-	es, if any, to ensure database integrity.
		• ·	.g. orders and trades) entered during the

Time	Activities
	Restore the data and proper BSS production configuration for following Monday, if necessary.
	<u>Note:</u> Keep all BSS/NSTD components powered-on throughout the weekend after the CS.
Download Day-end Tr	ade File and Closing Price File
12:30pm – 1:00pm	 Day-end closing price file and trade file in Central Trade Feed (CTF) format will be available from 12:30pm onwards. EPs are required to login to Electronic Communication Platform (ECP) (https://www.ecp.hkex.com.hk/) by using the production user ID with the "TO" user group (i.e. user ID of MXXXXXTOXXX) and production password.
Software fallback for E	3SS (if applicable)
After 1:00pm	For BSS :
	□ Fallback the BSS software to OCG compatible version (if applicable)
Post Test Verification prior registration)	Session after CS – fallback to OCG (optional and applicable to EPs with
	 Only EPs who have indicated their participation in the notification form, will have ALL of their enrolled production OCG sessions enabled to participate in the Post Test verification session. Logon to OTP-C Host For OCG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please
	 directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to <u>cs@etnet.com.hk</u>. For OCG/BSS Connect to OCG for all OCG sessions (including Trading and Drop Copy sessions). Logon using the assigned Comp ID(s) and Production password for all OCG sessions (including Trading and Drop Copy sessions). Participating EPs are reminded to input password correctly as unlock OCG session or reset password will not be handled during the Post Test Variational Constant.
Continuous Trading 6	Verification Session.
Continuous Trading S	
8:00pm – 9:00pm	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session.
Day Close at 9:00pm	





Time	Activities
9:00pm	 For OCG/NSTD: Perform trader logout. Perform ET Trade Speed Station end-of-trading procedure. Logout and terminate OCG session. Logout all ET Trade Speed Station. For OCG/BSS: Logout and terminate OCG session. Perform end-of-trading procedures, if any, to ensure database integrity. Clean up the transaction data (e.g. orders and trades) entered during the CS from BSS, if applicable.
	 Restore the data and proper BSS production configuration for following Monday, if necessary. <u>Note:</u> Keep all BSS/NSTD components powered-on throughout the weekend after the Post Test Verification Session.
26 July 2021 (Monda	ay)
Before 8:30am	 Logon to OTP-C Host For OCG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to cs@etnet.com.hk
	 For OCG/BSS Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using production password.



Appendix B – Activity Rundown for CMG MR1 on 7 August 2021

Time	Activities		
6 August 2021 (Friday) – After Market Close			
After 5:00pm	 After Market close Ensure all BSS/NSTD components (including network routers and workstations) are powered on after trading hours. Ensure the production database of in-house / back-office systems are properly backed-up before the MR1. Prepare BSS for CMG compatible version if EP has new BSS version for CMG rollout. <i>Notes :</i> <i>For BSS, please do not input any next day requests after trading hours on Friday (i.e. requests intended for submission to host on the following trading day, since next day requests will be submitted to OTP-C host during MR1 and will not be available on the following trading day)</i> After MR1 and Post Test Verification Session (if applicable), EPs are also reminded to clean up the next day requests (if any) to ensure that these testing orders will not be carried forward to the production on the following trading day 		
7 August 2021 (Sature			
Before 9:00am	Degon to OTP-C Host pr CMG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for CMG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to cs@etnet.com.hk. pr CMG/BSS Connect to CMG for all CMG sessions (including Trading and Drop Copy sessions). Logon using the assigned Comp ID(s) and the production password for all CMG sessions (including Trading and Drop Copy sessions).		
Pre-opening Session	20S)		
9:00am – 9:30am	 The Pre-Opening Session (POS) consists of Order Input period No-cancellation period Random Matching period Order Matching Order Matching Selocking period Blocking period Upperiod Upperio		
	Simulate real-life trading activities (in terms of transaction pattern and volume) during the POS		





Time	Activities
	Input manual trades during the POS.
	Ensure that the BSS/NSTD has the ability to cope with various trading statuses during the POS.
	□ Where applicable, verify the BSS/NSTD has the ability to correctly display Indicative Equilibrium Prices/Volume, Order Imbalance and Direction, Reference Price and Price Limits on the trading screen for the POS.
Morning Continuous	Trading Session (CTS)
9:30am – 10:45am	 The continuous trading session consists of Without VCM monitoring (9:30am - 9:45am) With VCM monitoring (9:45am - 10:45am)
	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session.
	For Liquidity Provider and Market Maker:
	- Submit market making orders or quotes on all their assigned products.
	□ Where applicable, input orders on <u>VCM securities</u> to trigger VCM cooling- off period and input order (within and outside the price limit) during the VCM cooling-off period.
	□ Where applicable, verify the BSS/NSTD has the ability to correctly display the reference price, upper and lower limits, start and end time of the VCM cooling-off period.
	Please note that EPs who do not follow the testing guidelines or conduct frivolous activities during the MR1 may be suspended from further participation in the market rehearsal without prior warning.
First Volume Test Ses	ssion (CTS)
10:00am – 10:05am	EPs should base on their maximum entitled throughput capacity of each CMG session to submit orders. EPs should verify that their trading facilities are able to support smooth order input operation during simulation of high volume market activities
	EPs should report immediately any irregularities identified during the Volume Test Session to HKEX.
Morning Continuous	Trading Session (CTS)
10:05am – 10:45am	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session
Mid-Day Close	
10:45am – 11:00am	Mid-day market closed
Order Cancellation Pe	eriod
10:55am – 11:00am	Simulate real-life conducting cancel outstanding orders
Afternoon Continuou	s Trading Session (CTS)



Time	Ac	tivities	
11:00am – 12:00noon		 The continuous trading session cor Without VCM monitoring (11: 	
		U	15am - 11:40am)
		- Without VCM monitoring (11:	,
		Č (
		Simulate real-life trading activities volume) during the continuous trad	s (in terms of transaction pattern and ing session.
		For Liquidity Provider and Market - Submit market making orders of	et Maker: or quotes on all their assigned products.
			VCM securities to trigger VCM cooling- d outside the price limit) during the VCM
			ISTD has the ability to correctly display er limits, start and end time of the VCM
			e CTS will be carried forward to the CAS ers, except the system will cancel those de the permissible price limit.
	frivo		low the testing guidelines or conduct be suspended from further participation
Second Volume Test	Sess	sion (CTS)	
11:30am – 11:35am		Same as First Volume Test Session	n
Afternoon Continuou	s Tr	ading Session (CTS)	
11:35am – 12:00noon		Simulate real-life trading activities volume) during the continuous trad	s (in terms of transaction pattern and ing session
Closing Auction Sess	ion	(CAS)	
12:00noon –12:10pm		The Closing Auction Session (CAS) consists of
		- Reference Price Fixing Period	(12:00noon - 12:01pm)
		- Order Input Period	(12:01pm - 12:06pm)
		- No-Cancellation Period	(12:06pm - 12:08pm)
		- Random Closing Period	(12:08pm - 12:10pm [random close time])
		- Order Matching	(12:08pm [random start time]- completion of matching [variable end time])
		- Day Close	upon completion of matching
		Simulate real-life trading activities volume) during the CAS.	s (in terms of transaction pattern and



Time	Activities	
	Input manual trades during the CAS.	
	Amend/cancel some of the outstanding limit orders carried forward from the CTS	
	 Ensure the BSS/NSTD can handle the transition from the CTS to the CAS. 	
	 Ensure the BSS/NSTD has the ability to cope with various trading statuses during the CAS. 	
	 Where applicable, verify the BSS/NSTD has the ability to correctly display Indicative Equilibrium Prices/Volume, Order Imbalance and Direction, Reference Price, Price Limits and closing prices on the trading screen for the CAS. 	
	 Test the BSS/NSTD has the ability to handle auction matching trades related to orders input during the CTS and CAS. 	
	For Market Makers choosing not to carry forward quotes to the CAS:	
	 Verify the BSS has the ability to withdraw large number of outstanding orders for market making securities in an efficient and effective manner. 	
Day Close – upon cor	npletion of matching	
12:10pm	For CMG/NSTD:	
	Perform trader logout.	
	Perform ET Trade Speed Station end-of-trading procedure.	
	Logout and terminate CMG session.	
	Logout all ET Trade Speed Station.	
	For CMG/BSS:	
	Logout and terminate CMG session.	
	Perform end-of-trading procedures, if any, to ensure database integrity.	
	Clean up the transaction data (e.g. orders and trades) entered during the MR1 from BSS, if applicable.	
	Restore the data and proper BSS production configuration for following Monday, if necessary.	
	<u>Note:</u> Keep all BSS/NSTD components powered-on throughout the weekend after the MR1.	
Download Day-end Tr	ade File and Closing Price File	
12:30pm – 1:00pm	Day-end closing price file and trade file in Central Trade Feed (CTF) format will be available from 12:30pm onwards. EPs are required to login Electronic Communication Platform (ECP) (<u>https://www.ecp.hkex.com.hk/</u>) by inputting the production user ID with the "TO" user group (i.e. user ID of MXXXXXTOXXX) and production password.	
After 1:00pm	Complete and return the Feedback Form to HKEX through Electronic Communication Platform (ECP) on or before 9 August 2021. If EPs submit the same file again, the latest copy will supersede the previous copy.	
Software fallback for E	SS (if applicable)	
After 1:00pm	For BSS :	
	□ Fallback the BSS software to OCG compatible version (if applicable)	

Time	Activities
prior registration)	Session after MR1 - fallback to OCG (optional and applicable to EPs with
Before 8:00pm	Note :
	Only EPs <u>who have submitted notification form</u> , will have ALL of their enrolled production OCG sessions enabled to participate in the Post Test verification session.
	Logon to OTP-C Host For OCG/NSTD
	Perform Administrator Logon to ET Trade Speed Station.
	 Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using the production password.
	Perform ET Trade Speed Station start-of-trading procedure
	Perform Trader logon.
	Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to <u>cs@etnet.com.hk</u> .
	For OCG/BSS
	 Connect to OCG for all OCG sessions (including Trading and Drop Copy sessions).
	 Logon using the assigned Comp ID(s) and Production password for all OCG sessions (including Trading and Drop Copy sessions).
	Participating EPs are reminded to input password correctly as unlock OCG session or reset password will <u>not</u> be handled during the Post Test Verification Session.
Continuous Trading S	Session
8:00pm – 9:00pm	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session.
Day Close at 9:00pm	
9:00pm	For OCG/NSTD:
	Perform trader logout.
	Perform ET Trade Speed Station end-of-trading procedure.
	Logout and terminate OCG session.
	Logout all ET Trade Speed Station.
	For OCG/BSS:
	 Logout and terminate OCG session. Perform end-of-trading procedures, if any, to ensure database integrity.
	 Clean up the transaction data (e.g. orders and trades) entered during the MR1 from BSS, if applicable.
	 Restore the data and proper BSS production configuration for following Monday, if necessary.
	<u>Note:</u> Keep all BSS/NSTD components powered-on throughout the weekend after the Post Test Verification Session.



Time	Activities
09 August 2021 (Mon	day)
Before 8:30am	 Logon to OTP-C Host For OCG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to cs@etnet.com.hk.
	Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using production password.



Appendix C – Activity Rundown for CMG MR2 on 21 August 2021

Time	Activities		
20 August 2021 (Friday)			
20 August 2021 (Frida After 5:00pm		 Ensure all BSS/NSTD components (including network routers and workstations) are powered on after trading hours. Ensure the production database of in-house / back-office systems are properly backed-up before the MR2. Prepare BSS for CMG compatible version if EP has new BSS version for CMG rollout. Notes : For BSS, please do not input any next day requests after trading hours on Friday (i.e. requests intended for submission to host on the following trading day, since next day requests will be submitted to OTP-C host during MR2 and will not be available on the following trading day) 	
			t be carried forward to the production on
21 August 2021 (Satu	rdav		
Before 9:00am	1	gon to OTP-C Host	
	E For E	r CMG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for CMG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to <u>cs@etnet.com.hk</u> . r CMG/BSS Connect to CMG for all CMG sessions (including Trading and Drop Copy sessions). Logon using the assigned Comp ID(s) and the production password for all	
Pre-opening Session	CMG sessions (including Trading and Drop Copy sessions).		
9:00am – 9:30am		 The Pre-Opening Session (PC Order Input period No-cancellation period Random Matching period Order Matching Blocking period 	DS) consists of (9:00am - 9:15am) (9:15am - 9:20am) (9:20am - 9:22am [random matching start time]) (9:20am [random start time] – completion of order matching [variable end time]) (upon completion of order matching [variable end time] - 9:30am)
		Simulate real-life trading act volume) during the POS.	ivities (in terms of transaction pattern and





Time	Activities		
	Input manual trades during the POS.		
	Ensure that the BSS/NSTD has the ability to cope with various trading statuses during the POS.		
	□ Where applicable, verify the BSS/NSTD has the ability to correctly display Indicative Equilibrium Prices/Volume, Order Imbalance and Direction, Reference Price and Price Limits on the trading screen for the POS.		
Continuous Trading S	Session (CTS)		
9:30am – 1:00pm	 The continuous trading session consists of Without VCM monitoring (9:30am - 9:45am) With VCM monitoring (9:45am - 12:40pm) Without VCM monitoring (12:40pm - 1:00pm) Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session. For Liquidity Provider and Market Maker: Submit market making orders or quotes on all their assigned products Where applicable, input orders on <u>VCM securities</u> to trigger VCM cooling-off period and input order (within and outside the price limit) during the VCM cooling-off period. Where applicable, verify the BSS/NSTD has the ability to correctly display the reference price, upper and lower limits, start and end time of the VCM cooling-off period. 		
	Please note that EPs who do not follow the testing guidelines or conduct frivolous activities during the MR2 may be suspended from further participation in the MR2 without prior warning.		
Simulated System Fai	ilure / Trading Interruption		
10:30am	 EPs should pay attention to HKEX's announcement of the contingency arrangement via Exchange News. The Exchange News will be available through OMD-C. If Exchange News cannot be disseminated through OMD-C, EPs should pay attention to HKEX's announcement via email with email address provided in Notification Form. 		
After 10:30am	For CMG/NSTD		
	Print out the trades concluded in OTP-C for records		
	For CMG/BSS		
	 Perform the necessary preparation and backup the trades concluded in OTP-C before failure on their BSS and/or back office system (if applicable) Output the trades concluded in OTP-C via Drop Copy function for record 		
	and verification purpose (if applicable)		



Time	ctivities
Resumption of Tradin	Trading Restart at Backup Site
At 11:30am	 Logon to OTP-C Host again. Make order and trade enquiries and print out Trade Journal locally, if applicable. Check and reconcile cancelled, matched and outstanding orders. Confirm with counter-parties on all manual trades input within 5 minutes before system crash, if applicable. Report any discrepancy to the Exchange.
Order Cancel Session	
11:45am - 12:00noon	Cancel outstanding orders individually as many as possible for rehearsal purpose.
Continuous Trading S	sion (CTS)
12:00noon – 1:00pm	 The continuous trading session consists of With VCM monitoring (12:00noon – 12:40pm) Without VCM monitoring (12:40pm – 1:00pm) Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session. For Liquidity Provider and Market Maker: Submit market making orders or quotes on all their assigned products. Where applicable, input orders on VCM securities to trigger VCM cooling-off period and input order (within and outside the price limit) during the VCM cooling-off period. Where applicable, verify the BSS/NSTD has the ability to correctly display the reference price, upper and lower limits, start and end time of the VCM cooling-off period.
Closing Auction Sessi	(CAS)
1:00pm – 1:10pm	 The Closing Auction Session (CAS) consists of Reference Price Fixing Period Order Input Period No-Cancellation Period Random Closing Period Order Matching Order Matching Day Close The Closing Auction Session (CAS) consists of Reference Price Fixing Period (1:00pm - 1:01pm) (1:06pm - 1:08pm) (1:08pm - 1:10pm



Time	Activities			
	Simulate real-life trading activities (in terms of transaction pattern and volume) during the CAS.			
	Input manual trades during the CAS.			
	Amend/cancel some of the outstanding limit orders carried forward from the CTS			
	 Ensure the BSS/NSTD can handle the transition from the CTS to the CAS. 			
	 Ensure the BSS/NSTD has the ability to cope with various trading statuses during the CAS. 			
	 Where applicable, verify the BSS/NSTD has the ability to correctly display Indicative Equilibrium Prices/Volume, Order Imbalance and Direction, Reference Price, Price Limits and closing prices on the trading screen for the CAS. 			
	 Test the BSS/NSTD has the ability to handle auction matching trades related to orders input during the CTS and CAS. 			
	For Market Makers choosing not to carry forward quotes to the CAS:			
	 Verify the BSS has the ability to withdraw large number of outstanding orders for market making securities in an efficient and effective manner. 			
Day Close – upon completion of matching				
1:10pm	For CMG/NSTD:			
	Perform trader logout.			
	Perform ET Trade Speed Station end-of-trading procedure.			
	Logout and terminate CMG session.			
	Logout all ET Trade Speed Station.			
	For CMG/BSS:			
	Logout and terminate CMG session.			
	Perform end-of-trading procedures, if any, to ensure database integrity.			
	Clean up the transaction data (e.g. orders and trades) entered during the MR1 from BSS, if applicable.			
	Restore the data and proper BSS production configuration for following Monday, if necessary.			
	Note:			
	Keep all BSS/NSTD components powered-on throughout the weekend after the MR2.			
Download Day-end Tr	ade File and Closing Price File			
1:30pm – 2:00pm	Day-end closing price file and trade file in Central Trade Feed (CTF) format will be available from 1:30pm onwards. EPs are required to login Electronic Communication Platform (ECP) (<u>https://www.ecp.hkex.com.hk/</u>) by inputting the production user ID with the "TO" user group (i.e. user ID of MXXXXXTOXXX) and production password.			
After 2:00pm	Complete and return the Feedback Form to HKEX through Electronic Communication Platform (ECP) on or before 23 August 2021. If EPs submit the same file again, the latest copy will supersede the previous copy.			



Time	Activities	
Software fallback for BSS (if applicable)		
After 2:00pm	For BSS : Fallback the BSS software to OCG compatible version (if applicable)	
Post Test Verification prior registration)	Session after MR2 - fallback to OCG (optional and applicable to EPs with	
Before 8:00pm	<u>Note :</u> Only EPs <u>who have submitted notification form</u> , will have ALL of their enrolled production OCG sessions enabled to participate in the Post Test verification session.	
	 Logon to OTP-C Host For OCG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to cs@etnet.com.hk. For OCG/BSS Connect to OCG for all OCG sessions (including Trading and Drop Copy sessions). Logon using the assigned Comp ID(s) and Production password for all OCG sessions (including Trading and Drop Copy sessions). Participating EPs are reminded to input password correctly as unlock OCG session or reset password will not be handled during the Post Test 	
Continuous Trading S	Verification Session.	
8:00pm – 9:00pm	Simulate real-life trading activities (in terms of transaction pattern and volume) during the continuous trading session.	
Day Close at 9:00pm		
9:00pm	 For OCG/NSTD: Perform trader logout. Perform ET Trade Speed Station end-of-trading procedure. Logout and terminate OCG session. Logout all ET Trade Speed Station. 	
	 For OCG/BSS: Logout and terminate OCG session. Perform end-of-trading procedures, if any, to ensure database integrity. Clean up the transaction data (e.g. orders and trades) entered during the MR1 from BSS, if applicable. Restore the data and proper BSS production configuration for following Monday, if necessary. 	



Time	Activities	
	Note: Keep all BSS/NSTD components powered-on throughout the weekend after the Post Test Verification Session.	
23 August 2021 (Monday)		
Before 8:30am	 Logon to OTP-C Host For OCG/NSTD Perform Administrator Logon to ET Trade Speed Station. Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using the production password. Perform ET Trade Speed Station start-of-trading procedure Perform Trader logon. Note: If EP encounters any issue on ET Trade Speed Station, please directly contact ET Trade Customer Service Hotline at 2880-8601 or by email to cs@etnet.com.hk. 	
	 For OCG/BSS Perform logon for OCG sessions (including Trading and Drop Copy sessions) by using production password. 	

Appendix D – Privacy Policy Statement

Privacy Policy Statement

Hong Kong Exchanges and Clearing Limited, and from time to time, its subsidiaries (together the "Group") (and each being "HKEX", "we", "us" or "member of the Group" for the purposes of this Privacy Policy Statement as appropriate) recognise their responsibilities in relation to the collection, holding, processing, use and/or transfer of personal data under the Personal Data (Privacy) Ordinance (Cap. 486) ("PDPO"). Personal data will be collected only for lawful and relevant purposes and all practicable steps will be taken to ensure that personal data held by us is accurate. We will use your personal data which we may from time to time collect in accordance with this Privacy Policy Statement.

We regularly review this Privacy Policy Statement and may from time to time revise it or add specific instructions, policies and terms. Where any changes to this Privacy Policy Statement are material, we will notify you using the contact details you have provided us with and, where required by the PDPO, give you the opportunity to opt out of these changes by means notified to you at that time. Otherwise, in relation to personal data supplied to us through the HKEX website or otherwise, continued use by you of the HKEX website or your continued relationship with us shall be deemed to be your acceptance of and consent to this Privacy Policy Statement, as amended from time to time.

If you have any questions about this Privacy Policy Statement or how we use your personal data, please contact us through one of the communication channels set out in the "Contact Us" section below.

We will take all practicable steps to ensure the security of the personal data and to avoid unauthorised or accidental access, erasure or other use. This includes physical, technical and procedural security methods, where appropriate, to ensure that the personal data may only be accessed by authorised personnel.

Please note that if you do not provide us with your personal data (or relevant personal data relating to persons appointed by you to act on your behalf) we may not be able to provide the information, products or services you have asked for or process your requests, applications, subscriptions or registrations, and may not be able to perform or discharge the Regulatory Functions (defined below).

Purpose

From time to time we may collect your personal data including but not limited to your name, mailing address, telephone number, email address, date of birth and login name for the following purposes:

 to process your applications, subscriptions and registration for our products and services;
 to perform or discharge the functions of HKEX and any company of which HKEX is the recognised exchange controller (as defined in the Securities and Futures Ordinance (Cap. 571)) ("Regulatory Functions");

 to provide you with our products and services and administer your account in relation to such products and services;

4. to conduct research and statistical analysis;

5. to process your application for employment or engagement within HKEX to assess your suitability as a candidate for such position and to conduct reference checks with your

previous employers; and 6. other purposes directly relating to any of the above.

Direct marketing

Where you have given your consent and have not subsequently opted out, we may also use your name, mailing address, telephone number and email address to send promotional materials to you and conduct direct marketing activities in relation to HKEX financial services and information services, and financial services and information services offered by other members of the Group.

If you do not wish to receive any promotional and direct marketing materials from us or do not wish to receive particular types of promotional and direct marketing materials or do not wish to receive such materials through any particular means of communication, please contact us through one of the communication channels set out in the "Contact Us" section below. To ensure that your request can be processed quickly please provide your full name, email address, log in name and details of the product and/or service you have subscribed. **Identity Card Number**

We may also collect your identity card number and process this as required under applicable law or regulation, as required by any regulator having authority over us and, subject to the PDPO, for the purpose of identifying you where it is reasonable for your identity card number to be used for this purpose.

Transfers of personal data for direct marketing purposes

Except to the extent you have already opted out we may transfer your name, mailing address, telephone number and email address to other members of the Group for the purpose of enabling those members of the Group to send promotional materials to you and conduct direct marketing activities in relation to their financial services and information services.

Other transfers of your personal data

For one or more of the purposes specified above, your personal data may be:

 transferred to other members of the Group and made available to appropriate persons in the Group, in Hong Kong or elsewhere and in this regard you consent to the transfer of your data outside of Hong Kong;

2. supplied to any agent, contractor or third party who provides administrative, telecommunications, computer, payment, debt collection, data processing or other services

to HKEX and/or any of other member of the Group in Hong Kong or elsewhere; and 3. other parties as notified to you at the time of collection.

How we use cookies

If you access our information or services through the HKEX website, you should be aware that cookies are used. Cookies are data files stored on your browser. The HKEX website automatically installs and uses cookies on your browser when you access it. Two kinds of cookies are used on the HKEX website:

Session Cookies: temporary cookies that only remain in your browser until the time you leave the HKEX website, which are used to obtain and store configuration information and administer the HKEX website, including carrying information from one page to another as you browse the site so as to, for example, avoid you having to re-enter information on each page that you visit. Session cookies are also used to compile anonymous statistics about the use of the HKEX website.

Persistent Cookies: cookies that remain in your browser for a longer period of time for the purpose of compiling anonymous statistics about the use of the HKEX website or to track and record user preferences.

The cookies used in connection with the HKEX website do not contain personal data. You may refuse to accept cookies on your browser by modifying the settings in your browser or internet security software. However, if you do so you may not be able to utilise or activate certain functions available on the HKEX website.

Compliance with laws and regulations

HKEX and other members of the Group may be required to retain, process and/or disclose your personal data in order to comply with applicable laws and regulations or in order to comply with a court order, subpoena or other legal process (whether in Hong Kong or elsewhere), or to comply with a request by a government authority, law enforcement agency or similar body (whether situated in Hong Kong or elsewhere) or to perform or discharge the Regulatory Functions. HKEX and other members of the Group may need to disclose your personal data in order to enforce any agreement with you, protect our rights, property or safety, or the rights, property or safety of our employees, or to perform or discharge the Regulatory Functions.

Corporate reorganisation

As we continue to develop our business, we may reorganise our group structure, undergo a change of control or business combination. In these circumstances it may be the case that your personal data is transferred to a third party who will continue to operate our business or a similar service under either this Privacy Policy Statement or a different privacy policy statement which will be notified to you. Such a third party may be located, and use of your personal data may be made, outside of Hong Kong in connection with such acquisition or reorganisation.

Access and correction of personal data

Under the PDPO, you have the right to ascertain whether we hold your personal data, to obtain a copy of the data, and to correct any data that is inaccurate. You may also request us to inform you of the type of personal data held by us. All data access requests shall be made using the form prescribed by the Privacy Commissioner for Personal Data ("**Privacy Commissioner**") which may be found on the official website of the Office of the Privacy Commissioner or via this link

https://www.pcpd.org.hk/english/publications/files/Dforme.pdf

Requests for access and correction of personal data or for information regarding policies and practices and kinds of data held by us should be addressed in writing and sent by post to us (see the "Contact Us" section below).

A reasonable fee may be charged to offset our administrative and actual costs incurred in complying with your data access requests.

Termination or cancellation

Should your account or relationship with us be cancelled or terminated at any time, we shall cease processing your personal data as soon as reasonably practicable following such cancellation or termination, provided that we may keep copies of your data as is reasonably required for archival purposes, for use in relation to any actual or potential dispute, for the purpose of compliance with applicable laws and regulations and for the purpose of enforcing any agreement we have with you, for protecting our rights, property or safety, or the rights, property or safety of our employees, and for performing or discharging our functions. oblications and responsibilities.

General

If there is any inconsistency or conflict between the English and Chinese versions of this Privacy Policy Statement, the English version shall prevail.

Contact us

By Post: Personal Data Privacy Officer Hong Kong Exchanges and Clearing Limited 8/F., Two Exchange Square 8 Connaught Place Central Hong Kong

By Email: DataPrivacy@HKEX.COM.HK