

HKEX INFORMATION SERVICES LIMITED

(A wholly-owned member of the Hong Kong Exchanges and Clearing Limited Group)

Mainland Market Data Hub (“MMDH”) Data Centre Failover Drill on 20 November 2021

System: MMDH

Time (HKT)	Activity	Action – for participating MMDH Clients
08:30	MMDH is ready for connection in Primary Data Centre	<ul style="list-style-type: none"> • Clients to connect to MMDH and receive MMDH messages in Primary Data Centre.
09:00 - 09:30	Pre-opening Session	
09:30	Start of Continuous Trading Session	
Around 09:40	<p>Simulation of Primary Data Centre service outage and failover to Secondary Data Centre for MMDH servers</p> <ul style="list-style-type: none"> • MMDH servers in Primary Data Centre will be shutdown <p><i>[HKEX will notify MMDH clients of the simulated incident by email and advise clients to stay alert to HKEX’s announcement on service resumption. Emails for rehearsal will all be tagged with “OMD-C MMDH Drill 数据中心系统复原演习-2021年11月20日” in the email subject.]</i></p>	<ul style="list-style-type: none"> • Clients will be disconnected from the MMDH servers in Primary Data Centre temporarily • Clients to execute their own contingency arrangement
Around 10:10	<p>MMDH is ready for connection in Secondary Data Centre</p> <p><i>[HKEX will announce service resumption of MMDH by email and advise clients to reconnect to MMDH servers on the Secondary Data Centre]</i></p>	<ul style="list-style-type: none"> • Clients to connect to MMDH in Secondary Data Centre* and receive MMDH messages in Secondary Data Centre
Around 11:00	Confirm result of the Data Center Failover Drill	<ul style="list-style-type: none"> • Clients please confirm your drill result by completing the Online Test Result Confirmation Form by 12:30 • Clients are required to continue to join the following connectivity test after the fallback of MMDH to the Primary Data Center to ensure the production connectivity for the next trading day
Connectivity Test for Reconnecting to the Primary Data Centre		

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Around 11:10	<p>Fallback for the MMDH connection from Secondary to Primary Data Centre</p> <ul style="list-style-type: none"> MMDH servers in Secondary Data Centre will be shutdown <p><i>[HKEX will notify MMDH clients of the restoration of the Primary Data Centre by email and advise clients to stay alert to HKEX's announcement on readiness for reconnection]</i></p>	<ul style="list-style-type: none"> Clients will be disconnected from the MMDH servers in Secondary Data Centre Clients to arrange connectivity back to MMDH Primary Data Centre.
12:00	<p>MMDH is ready for connection in Primary Data Centre</p> <p><i>[HKEX will announce service resumption of MMDH on the Primary Data Centre by email and advise clients to reconnect to MMDH servers on the Primary Data Centre for the next trading day]</i></p>	<ul style="list-style-type: none"> Clients to connect to MMDH and receive MMDH messages in Primary Data Centre. If there is any connectivity issue, please inform HKEX by 12:30.
12:00 – 12:10	Closing Auction Session	
Upon completion of Matching (About 12:10)	Day Close	
Result Confirmation		
By 12:30	Clients please confirm your drill result by completing the Online Test Result Confirmation Form	

*Information on Disaster Recovery can be found in Section 2.2.5.2 of MMDH Interface Specification which is recapped below for your reference:

Disaster Recovery

“Since sequence numbers between the Primary site and the Secondary site are not guaranteed to be the same, a Refresh may be required. Clients should specify the 'InternalSeqNum' as 0 during their first Logon to the Secondary site and the MMDH system at Secondary site will respond with Restart recovery required or indicate the need for a Refresh. Any subsequent disconnects should continue to use the last seen number the same as for the MMDH Primary.”

Important Notes to Clients:

- For fault reporting, please call our Connectivity Project & Support Hotline at (852) 2211 6558 during the drill session / (852) 9183 8966 out of the drill.
- All messages disseminated during the drill should be treated as non-production data and have to be cleaned up afterwards.
- In any case, all participating Clients should complete the appropriate day-end works including file / database backup, system restoration / fallback and etc. before, during and / or after the drill.