

**Rundown for OMD-C Simulation Session for Backup Site Failover**  
**on 31 May 2014 (Saturday)**

Time	Activities
<b>Before 31 May 2014</b>	
	<p><b><u>Preparation</u></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> In order to restore their market data service quickly, clients are advised to have their systems <ul style="list-style-type: none"> <li>■ automatically resume market data service against the OMD-C backup site when there is site failover of the OMD-C</li> <li>■ automatically connect to the RTS servers, if needed, via the backup IP addresses and ports when the OMD-C is failover to the backup site</li> </ul> </li> </ul>
<b>Saturday (31 May 2014)</b>	
Before 8:00am	<input type="checkbox"/> OMD-C ready for client connection
Before 9:00am	<p><b><u>Establish connection to OMD-C</u></b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Clients to connect to production OMD-C</li> </ul>
<b>Pre-opening Session</b>	
9:00am – 9:30am	<ul style="list-style-type: none"> <li><input type="checkbox"/> HKEx will disseminate securities market data and index data via the production channels assigned for different OMD-C datafeeds during the following pre-opening sessions: <ul style="list-style-type: none"> <li>- Order Input period (9:00am - 9:15am)</li> <li>- Pre-order Matching period (9:15am - 9:20am)</li> <li>- Order Matching period (9:20am - 9:28am)</li> <li>- Blocking period (9:28am - 9:30am)</li> </ul> </li> <li><input type="checkbox"/> Clients to verify that all of their connections to OMD-C are in proper order and their systems can receive data from all of the real-time and refresh multicast channels that they are entitled to access</li> <li><input type="checkbox"/> Clients to verify that their systems can recover messages of all types that they are entitled to access from the retransmission services</li> </ul>
<b>Continuous Trading Session</b>	
9:30am – 10:30am	<ul style="list-style-type: none"> <li><input type="checkbox"/> HKEx will disseminate securities market data and index data via the production channels assigned for different OMD-C datafeeds.</li> <li><input type="checkbox"/> Clients to perform the same verification as in the pre-opening sessions</li> </ul>

Time	Activities
<b>Simulate OMD-C Primary Site Failure and Failover to the DR (backup) site</b>	
~10:30am – ~10:40am	<ul style="list-style-type: none"> <li><input type="checkbox"/> HKEx will bring down OMD-C in the primary site</li> <li><input type="checkbox"/> When the OMD-C primary site is brought down, clients will be <ul style="list-style-type: none"> <li>■ unable to receive multicast data including heartbeat from all real-time &amp; refresh channels,</li> <li>■ unable to connect and log on RTS or, in the case of an already established RTS session, the TCP connection is disconnected or appears stale with no response from RTS servers</li> </ul> </li> <li><input type="checkbox"/> HKEx will bring up OMD-C in the backup site, which could be as short as 5 minutes to ready for client connection</li> <li><input type="checkbox"/> Clients to establish connection in the OMD-C backup site</li> <li><input type="checkbox"/> For clients' systems which are capable to continuously monitor multicast traffic throughout the OMD site failover process, <ul style="list-style-type: none"> <li>■ they will receive one Sequence Reset message on each real-time and refresh channels – clients are expected to clear the data in cache upon receipt of the Sequence Reset messages and then obtain the latest market image from the refresh and real-time channels from the backup site,</li> <li>■ they can then connect to the RTS servers via the backup IP addresses and ports when OMD-C backup site is up</li> </ul> </li> <li><input type="checkbox"/> For clients' systems which do not possess the automatic failure detection and recovery capability (e.g. those client systems requiring stop/start as part of the OMD-C site failover procedure), <ul style="list-style-type: none"> <li>■ they could miss the sequence reset from real-time and refresh channels,</li> <li>■ when this happen, they would still need to clear the data in cache and recover through the refresh service as in the case of late client system startup when OMD is already disseminating data</li> </ul> </li> <li><input type="checkbox"/> HKEx will also inform clients via email the shutdown of OMD-C in the primary site and the startup of OMD-C in the backup site. HKEx's email notification is for information only and for clients with automated DR failover capability, there is no need for them to make the notification a dependency in their automated solution.</li> </ul>

Time	Activities
<b>Continuous Trading Session (continue)</b>	
~10:40am – 12:00noon	<input type="checkbox"/> HKEx will disseminate securities market data and index data via the production channels assigned for different OMD-C datafeeds from the backup site. <input type="checkbox"/> Clients to verify that all of their connections to OMD-C are in proper order and their systems can receive data from all of the real-time and refresh multicast channels that they are entitled to access <input type="checkbox"/> Clients to verify that their systems can recover messages of all types that they are entitled to access from the retransmission services
<b>Exchange Intervention from 12:00 noon to 12:05pm</b>	
<b>Day Close at 12:05pm</b>	
By 1:00pm	<input type="checkbox"/> Client to perform any day-end processes to ensure database integrity where applicable <input type="checkbox"/> Clients to clean up the test data received during the test <input type="checkbox"/> <b><u>Clients to submit Test Result Form for the OMD-C Simulation Session for Backup Site Failover</u></b>
<b>Connectivity Test</b>	
4:00pm – 4:30pm	<input type="checkbox"/> HKEx to bring up production systems as required <input type="checkbox"/> Clients to make unicast connections to the retransmission server to verify the resumption of their production configuration to the OMD-C primary site

**Important Notes to Clients:**

1. For fault reporting, please call our Vendor Support Hotline at (852) 2211 6558.
2. All messages disseminated during the testing period should be treated as non-production data and have to be cleaned up afterwards.