Mainland Market Data Hub – Securities Market (OMD-C MMDH) Frequently Asked Questions (FAQs) *Updated: 08/04/2016*

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General

1. Who would use MMDH?

OMD MMDH may suit the business needs of various market users no matter they are (1) Mainland information vendors ("clients") who would like to connect directly to HKEX for market data but have been deterred by the high cross-border circuit cost; or (2) information vendors ("clients") outside Mainland planning to expand their market data business in the Mainland for Hong Kong stock market data initially and Hong Kong derivatives market data in future.

2. Is there any plan to launch derivatives market data in MMDH?

HKEX derivatives market data, including futures and options data, are not available in MMDH at the initial rollout. Subject to market demand, HKEX may consider adding derivatives market data in the near future.

- 3. Does it make any latency difference if my server is located nearby Mainland Market Data Hub in Shanghai versus other places in Shanghai? The physical length of the circuit would theoretically incur some latency difference but in practice it is not significant since the distance between client's server and MMDH in Shanghai is relatively short as compared to the distance between MMDH in Shanghai and the OMD central system in Hong Kong.
- 4. Will HKEX plan to consider adopting multicast transmission in MMDH in the near future?

This is dependent on the availability of high quality multicast network services by Mainland network carriers. HKEX will continue reviewing the service offerings of Mainland carriers to see if the Mainland network infrastructure is suitable for multicast.

5. What is the message protocol available in OMD MMDH?

Binary message protocol will be used in OMD MMDH to allow optimal transmission efficiency.

Product

6. Is there any difference in the data content offered in MMDH datafeed products and the OMD central system?

Data content in OMD Securities Standard, Index Feed and Odd lot order will be the same as those product feeds offered in OMD central system.

- 7. What is the bandwidth requirement for each OMD MMDH product feed? Bandwidth requirement for receiving Securities Standard (SS) will be 10Mbps (including optional feeds of index and OLO which incur minimal bandwidth).
- 8. Will HKEX have plan to offer SP and SF in MMDH in the coming future? OMD Securities Premium (SP) and Securities FullTick (SF) datafeeds with higher bandwidth requirements are not available in MMDH at the initial rollout. Subject to market demand, HKEX may consider adding SP and SF in the near future.

9. Will there be Interface Specification in Chinese?

Yes. We plan to have MMDH Interface Specification in simplified Chinese available on website in the near future. Clients are advised that the simplified Chinese version is to be provided for reference only. Should there be any discrepancy between English and Chinese versions, clients should refer to the English version.

Licence/Fees

- 10. Will existing clients need to apply for a separate licence for OMD MMDH? Existing clients will not be required to apply for a separate licence for using MMDH. Only Schedule 3 of their existing Market Data Vendor Licence Agreement will be updated to list out the product feeds subscribed from MMDH. Interested clients may contact our Sales & Marketing Team by emailing to MarketData@hkex.com.hk.
- 11. My company is currently a HKEX-IS IV. Once my company connects directly to the MMDH, does it mean we can be a feed-providing vendor and also redistribute the market data to HKEX-IS authorized IV for further redistribution? Is there any specific requirement we need to be aware of? IVs connecting to MMDH are considered as direct connection vendors. Similar to feed-providing vendors receiving data from OMD central system in Hong Kong, clients who would receive data from MMDH for offering feed providing services should observe and meet the same technical requirement currently applicable to MDF 3.8 which runs on unicast transmission, i.e. feed-providing vendors must have dual live connections (non-standard configuration) with HKEX.
- 12. My company would like to obtain HKEX market data for internal use. Can my company connect directly to MMDH?

End-user Licence for securities market data was introduced in January 2013. It is also applicable to clients who connect to MMDH for SS for internal use. Please refer to our website for the End-User Licence application forms and procedures.

13. My company is currently a delayed IV. Can my company connect directly to MMDH for delayed securities market data?

Same as OMD central system, only real-time datafeed products are offered in MMDH. Any clients who would connect to our MMDH will be subject to the same licensing arrangement and fees as real-time IV licensee. Please refer to our website for the End-User Licence application forms and procedures.

14. Does my company need to get the corresponding licence from the index compliers directly if my company has already subscribed to MMDH Index feed?

Yes, clients who wish to redistribute the indexes available in the Index Feed need to get the corresponding licence from the index compilers directly, except for the S&P/HKEX indices which are already covered in the Market Data Vendor Licence

Agreement with HKEX-IS.

15. My company is currently a direct connection IV and planning to connect via MMDH at the same time, does it mean we have to pay the licence fee twice? Any discount?

Clients who retain production connection of Securities Standard (SS) to both OMD central system and MMDH will just need to pay Redistribution Fee once for the right to redistribute the SS data. However, they need to pay the Connection Fee for connection to OMD central system and the Connection Fee plus the One-off Connection Fee applicable to connection to MMDH, in addition to the Subscriber Fees. Please refer to OMD Fee Schedule at HKEX website for details.

16. What fees does our company need to pay for connecting to MMDH for Securities Standard (SS) and Index feed for further redistribution if we adopt one set of SS standard connection (i.e. standard configuration)?

A company who would like to redistribute HKEX securities and index data by receiving SS and index feed from MMDH will be liable to pay HKEX-IS the following license fees:

Total:	\$636,000 per annum (minimum)	
Subscriber Fee	subject to a minimum subscriber fee of \$6,000 per month	
Connection Fee for MMDH (first set)	\$45,000 per quarter x 2	
Redistribution Fee	\$51,000 per quarter	
<u>Recurring Fees</u>	<u>Amount (HK\$)</u>	

<u>One-off Fees</u> One-off connection fee

\$10,000

Index Feed is complimentary to SS for the time being. HKEX reserves the right to impose charge on Index Feed in future. Clients who wish to redistribute the indexes will need to get the corresponding licence from the index compiler directly. Please refer to OMD Fee Schedule at HKEX website for details.

17. What fees does our company need to pay for setting up additional live connection (second live) in MMDH for resilience purpose (i.e. non-standard configuration)?

The connection fee for the additional live connection will be aligned to the central system. A company is liable to pay HKEX-IS the following licence fees:

Recurring Fees	<u>Amount (HK\$)</u>
Redistribution Fee	\$51,000 per quarter
Connection Fee for MMDH (first set)	\$45,000 per quarter x 2
Connection Fee for MMDH (additional set)	\$70,000 per quarter
Subscriber Fee	subject to a minimum subscriber fee of \$6,000 per month
Total:	\$916,000 per annum (minimum)

<u>One-off Fees</u>	
One-off connection fee	\$10,000

Please refer to OMD Fee Schedule at HKEX website for details.

18. What is the difference between Standard and Non-Standard Configuration? Standard and Non-Standard Configuration is different in terms of minimum number of lines required for connection to MMDH. Detailed descriptions and diagrams can be found in Section 6 of MMDH On-boarding Information pack.

Standard configuration: A standard configuration will include single live connection. Minimum 3 lines will be required, two connected to the OMD MMDH primary site and one connected to OMD MMDH secondary site.

Non-standard configuration: An additional live connection added to the standard service will cover two live connections to each site. In this configuration, 4 lines will be required, i.e. two connected to the OMD MMDH primary site and two connected to the OMD MMDH secondary site. Information Vendors can adopt this configuration to receive production data transmitted from both links concurrently at OMD MMDH production system.

19. Can our company still join as a MMDH FMP member? If not, is there any other promotion(s) for Mainland clients?

MMDH Founding Members Program (FMP) was already closed for application in April 2013. However, we are still offering other discount programs for Mainland clients. For details please refer to our website.

Onboarding

20. Will HKEX contact directly the telecom provider on line installation arrangement?

Clients are required to approach the telecom provider directly for placing the line order. When the line installation order is placed, clients should approach HKEX for scheduling the subsequent connectivity test. Please note that line connection from clients' server to OMD MMDH server will only be allowed upon the settlement of required deposit/ one-off connection fee.

21. Will SDNet/2 network still be used under OMD MMDH?

No, SDNet/2 will be used only for OMD data transmission in Hong Kong central site but will not be used in Mainland Market Data Hub. Clients who connect via MMDH should subscribe the Ethernet Connections between your own server and OMD MMDH.

22. What is the format of the Broker number providing in the Broker Queue message (54) and Liquidity Provider message (13) in MMDH?

The Broker number providing in the Broker Queue message (54) and Liquidity Provider message (13) is in integer format. However, clients may also need to observe the Rules of the Exchange for the interpretation of broker numbers when disseminating or displaying the information to their downstream clients.

23. For data recovery in MMDH, is retransmission possible?

The chance of data recovery is limited. For MDS, client can download ALL missing information if they set the threshold large enough to cover all data. For MMDH, only latest market snapshot will be available from Refresh service. The recovery of latest market snapshot by Refresh Service is documented in Section 4.2 of OMD-C MMDH Interface Specification.

24. Would Independent Software Vendors (ISVs) be available for MMDH clients?

Yes, as long as the ISV software version is certified by HKEX-IS. Please note that as there are different technical setups between MMDH and the OMD Central System, should vendors wish to use software developed by ISVs, they should look for the software that have passed the Readiness Test for MMDH and approved by HKEX-IS.

25. Our company missed previous technical seminars in Mainland, will there be

any further seminar or previous technical seminar notes can be provided to us for development purpose?

Materials of the technical seminars are available at MMDH corner for clients' reference. Also, you may email technical questions of MMDH to OrionMarketData@hkex.com.hk and our technical team will shortly get back to you.

HKEX will consider for future technical seminars in Mainland on market demand.

26. After completion of Certification Tests, do we need to cancel two testing lines? Clients may not be required to cancel the two testing lines, but consider requesting their telecom to reconfigure the two testing lines to our production environment for Market Rehearsal and on-going production connection.