

Guiding Note for Independent Software Vendors for Test Service (For Securities and Derivatives Market Data)

PURPOSE

In April 2013, HKEX Information Services Limited (“HKEX-IS”) launched a new Test Service to allow Independent Software Vendors (“ISVs”) to conduct testing on Hong Kong Exchanges and Clearing Limited (“HKEX”) Orion Market Data Platform (“OMD”). This document aims to provide guidance to all interested parties.

OVERVIEW OF TEST SERVICE

1. On this Guiding Note, the Test Service refers to the provision of testing facilities, including connection to the test environment and/or off-line testing tools, and related technical documents by HKEX-IS, which allows ISVs to conduct testing and declare readiness of their own software for handling market data disseminated via OMD. It should be noted that HKEX-IS only provides the Test Service to ISVs to enable them to verify the capability of their software of handling data transmitted from OMD. The successful completion of the required conformance testing¹ for a software version by an ISV should not be regarded as any form of co-operation with, endorsement or authorization by HKEX-IS. HKEX-IS does not guarantee the relevant software’s quality, reliability and suitability for its customers’ needs.
2. With this Test Service, ISVs can conduct testing on their own software and provide the tested software to Exchange Participants (“EPs”), Information Vendors (“IVs”) and End Users (“EUs”) (collectively as “Clients”) who are market data licensees of HKEX-IS. The Test Service provides the Clients an option to use a software developed and tested by an ISV instead of building it in-house and this may help them reduce time and cost (such as testing line charges) for getting onboard OMD in production. At the same time the Test Service also facilitates the readiness of OMD Clients for the rollout of HKEX’s initiatives.
3. It is important to note that the scope of this Test Service does not cover testing conducted in HKEX’s production environment to which ISVs do not have access. Therefore OMD Clients, rather than their appointed ISVs, should join test sessions in the production environment (e.g. Connectivity Session / Market Rehearsal / Post Release Test) as required by HKEX-IS and declare their own test results.

APPLICATION PROCESS

4. Any party interested in becoming an ISV can refer to the application forms and procedures as included on [HKEX’s website](#). An applicant should first complete and submit the Test Service Application Form (for Independent Software Vendors) to HKEX-IS for approval at least 30 days prior to the Test Service Commencement Date.
5. Subsequently, the ISV applicant should (i) make relevant upfront payment² to HKEX-IS upon receipt of a demand note, and (ii) make connection arrangement with network carriers, where all connection charges shall be borne by the applicant. In making connection arrangement, the applicant should follow the Connectivity Guide and other relevant instructions from HKEX-IS, and should also provide HKEX-IS with proof of the effective date it starts to connect to the test environment.

DETAILS OF TEST SERVICE

¹ Conformance testing may be in the form of Certification Test, Readiness Test, Offline Simulator Test or others as determined by HKEX-IS with consideration on relevant factors

² Except in the case of waiver, upfront payment is One-off Registration Fees plus Test Charges for 3 calendar months

6. An ISV can subscribe for the Test Service to conduct conformance testing on any of the OMD datafeeds covered in the OMD Interface Specifications for (i) Securities Market & Index Datafeed Products; and (ii) Derivatives Market Datafeed Products.
7. **ISV Declaration of Readiness for its Software:** An ISV should conduct the conformance testing as required by HKEX-IS according to the Test Procedures provided by HKEX-IS. Upon the completion of the test, the ISV should submit to HKEX-IS the Test Result Declaration Form as appended on the Test Procedures. The ISV should also submit a separate [Declaration Form for Software Versions](#) with full details as required in the form. HKEX-IS may publish the name of the ISV and related information on HKEX's website after the ISV has met all conformance and declaration requirements.

All software accessing and processing OMD data should have gone through the respective conformance testing required for the datafeed product concerned. Therefore an ISV should perform conformance testing on a tested software again and declare its readiness before deployment if the software has to be changed :

- i. to meet the ISVs' own need; or
- ii. to adapt to the system enhancement/upgrade initiated by HKEX-IS

In the above case of software change, the ISV should also complete the [Declaration Form for Software Versions](#) with all required details and submit it to HKEX-IS for record and/or publication.

8. An ISV can maintain its connection to the test environment for on-going testing where the Test Charges as described in paragraph 15 are applicable.

RESPONSIBILITIES OF ISV

9. An ISV is responsible for all matters related to the use of its software by Clients, including, but not limited to, provision of the suitable software version for deployment and arrangement for Clients' proper testing etc. HKEX-IS and/or any of its holding companies or subsidiaries accept no liabilities for any loss or damage arising from any arrangement between the ISV and its Clients.
10. An ISV is responsible for assisting its Clients in understanding and meeting the requirements set by HKEX-IS for allowing a Client to use an ISV's software for gaining access to the datafeed product(s) to which the Client subscribes, in particular the followings that the Client has to do:
 - Submit the "[Declaration Form for Readiness \(Using Independent Software Vendor's Software\) \(for Real-time Information Vendors & End-Users\)](#)" where the Client authorises the ISV to handle all matters in relation to software development, upgrade and testing (except those requiring Clients' participation in production environment) on the feed handling software for the datafeed product concerned;
 - Ensure that the feed handling software provided by the appointed ISV suits the Client's needs;
 - Understand that HKEX-IS will take the readiness status as declared by the Client's appointed ISV as the Client's readiness status for participating in the test sessions in the production environment, e.g. Market Rehearsals, meaning that HKEX-IS will not contact the Client for its readiness status; and
 - Participate in the test sessions in the production environment as required by HKEX-IS and declare its own test results (the ISV will collect the test participation form completed by Clients for batch submission to HKEX-IS and assist the Clients in assessing the test results and returning the test result forms to HKEX-IS if needed).
11. An ISV is obliged to maintain an up-to-date inventory of its software versions and the up-to-date list of Clients for each software version.
12. For internal reference where necessary, HKEX-IS may need to understand the functionalities of a feed handling software deployed by an ISV for its Clients. The ISV should be able to provide the answers to HKEX-IS. The ISV should also be able to assist its Clients in providing the answers to HKEX-IS if the Clients are the target respondents.

13. HKEX-IS may announce forthcoming changes to OMD datafeed products from time to time and require Clients to prepare for and participate in market-wide tests, e.g. Connectivity Test, Market Rehearsals, Post Release Test, etc. An ISV should assess the impact of the changes on its feed handling software(s), make required software changes, declare the readiness of its software(s) to HKEX-IS and co-ordinate the participation of its clients in the market-wide tests.
14. **Responsibilities Related to Changes of Software Versions:** In the event of changes required to be made to a deployed ISV-supplied software, be it initiated by the ISV, the Client or HKEX-IS, the ISV is required to fulfill the followings:

A. Obligations to HKEX-IS

- i. Conduct conformance testing as required and submit “Declaration Form for Software Version” for the new software version upon successful completion;
- ii. Provide up-to-date “Client Report” with list of Clients for each of its conformed feed handling software version in a timely manner;
- iii. Co-ordinate Clients’ participation in production environment test sessions; and
- iv. Collect test participation forms from Clients for the above test sessions

B. Obligations to its Clients

- i. Communicate with Clients clearly on the software changes;
- ii. Provide reliable advice to Clients on proper software testing, e.g. Client’s internal integration testing and participation in production environment test sessions;
- iii. Provide adequate support to Clients for completing the test sessions in the production environment required by HKEX-IS; and
- iv. Assist Clients in assessing the test results and returning the test results forms to HKEX-IS as necessary.

FEES & CHARGES

15. The charges for the Test Service payable by ISVs are set forth in the table below. A demand note will be issued for the One-off Registration Fees and Test Charges payment.

| | | Securities Market Data | Derivatives Market Data |
|------|---------------------------|------------------------|---|
| (i) | One-off Registration Fees | HK\$10,000 | HK\$10,000 |
| (ii) | Test Charges | Daily | HK\$1,500 per Connection Set ³ |
| | | Monthly | HK\$21,000 per Connection Set |
| | | | HK\$500 per Connection Set |
| | | | HK\$7,000 per Connection Set |

- One-off Registration Fees
 - The One-off Registration Fees are non-refundable and should be payable before connecting to the test environment.
 - The One-off Registration Fees apply separately to Securities and Derivatives Market Data. For the purpose of illustration, an applicant subscribing for testing of both Securities and Derivatives Market Data should pay two sets of One-off Registration Fees, i.e. HK\$20,000.
- Test Charges
 - Before connecting to the test environment, the ISV should pay HKEX-IS the Test Charges for the first 3 calendar months which are non-refundable.
 - For any subsequent Test Service after the first 3 calendar months, the ISV should submit the Test Service Application Form (for ISV) at least 30 days in advance and pay HKEX-IS the Test Charges for that respective test period upon receipt of a demand note. This should be paid prior to the commencement of the corresponding test period.

³ Each Connection Set comprises one Retransmission ID per subscribed OMD datafeed product (excluding complimentary services); and one or multiple Connection Set(s) shall be supported by at least two testing lines

- For the purpose of illustration, if an applicant subscribes for Test Service starting effectively from January, the first upfront payment shall be paid before start of January (for Test Service from January to March); and subsequent payments shall be paid before start of April (for Test Service in April), before start of May (for Test Service in May) and so on.
 - For Test Service of an incomplete month, the ISV will be charged at the daily rate or the monthly rate, whichever is lower.
16. **Waiver Policy:** If the ISV is an existing HKEX-IS licensed IV/EU or a Related Company of an existing HKEX-IS licensed IV/EU as specified on Schedule 2 of the Licence Agreement, the One-off Registration Fees will be waived; and the Test Charges will be subject to the prevailing HKEX-IS test charges policy.
17. **Overdue Payment:** Apart from the upfront payment which shall be fully paid before connecting to the test environment, HKEX-IS can terminate the ISV's Test Service immediately without notice if the ISV is late in paying any sums⁴ due to HKEX-IS by more than 30 days.
18. **Termination:** Both parties can without stating a reason terminate the Test Service by giving no less than 30 days' prior notice of termination in writing to the other party. In this case, the ISV should provide HKEX-IS with proof of the effective date it disconnects from the test environment. The status of ISV is terminated once the Test Service is terminated for whatever reason. Any prepaid test charges (other than the upfront payment) shall be repaid to the ISV without interest or compensation within 30 days after the termination.
19. **Reconnecting after Termination:** If a terminated ISV wants to subscribe for the Test Service again, the 3 months' minimum subscription period and/or the One-off Registration Fees might apply at the own discretion of HKEX-IS.

For questions and doubts on interpretation of the above information, please contact us at MarketData@hkex.com.hk. List of relevant forms and documents are published on [HKEX's website](#) for easy reference.

HKEX-IS reserves the right to change any information on this Guiding Note at any time without prior notice.

⁴ For clarification purpose, payment is due immediately upon receipt of a demand note.