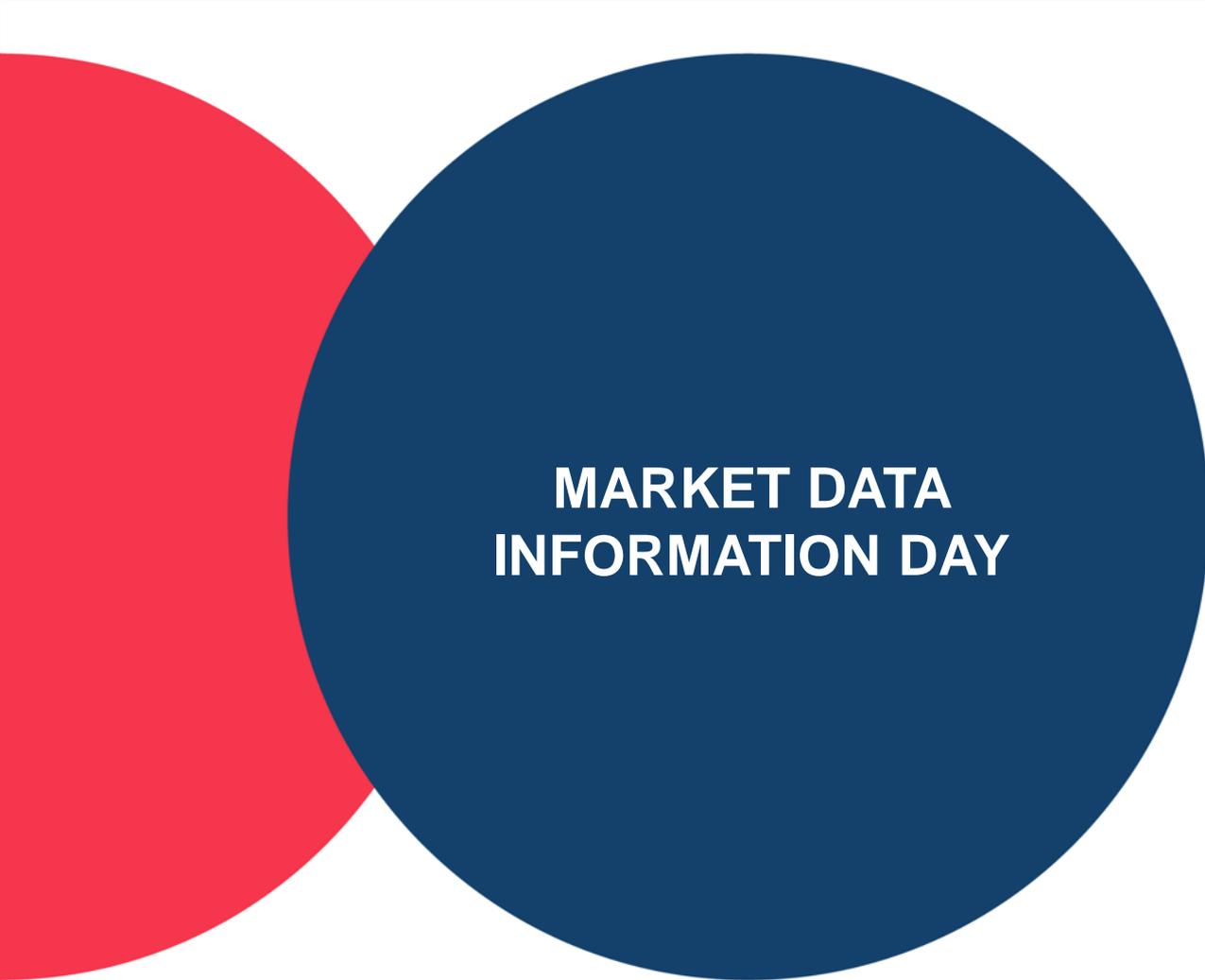


24 October 2018



**MARKET DATA
INFORMATION DAY**

HKEX
香港交易所

Market Data
Markets Division

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Rundown

2:30 pm – 2:45 pm	Opening Remarks
2:45 pm – 3:15 pm	Licensing Arrangement, Fees and Key Marketing Initiatives
3:15 pm – 3:45 pm	Reporting, Payment Arrangement and Audit Programme
<hr/>	
3:45 pm – 4:15 pm	Break
<hr/>	
4:15 pm – 4:45 pm	Introduction of OMD Platforms, its Features and Technical Arrangement
4:45 pm – 5:15 pm	Hosting Services
5:15 pm – 5:30 pm	Q&A
<hr/>	
5:30 pm – 7:00 pm	Cocktail



AGENDA

1

Opening Remarks – Winnie Poon, Head of Market Data

2

Licensing Arrangement, Fees and Key Marketing Initiatives
– Jin Qian, Head of Data Licensing and Marketing, Market Data

3

Reporting, Payment Arrangement and Audit Programme
– Lianna Liu, Head of Data Client Audit, Market Data

4

Introduction of OMD Platforms, its Features and Technical Arrangement
– Arthur Yung, Head of Data Connectivity and Support, Market Data

5

Hosting Services – Andy Lee, Vice President, Business Development, Hosting Business

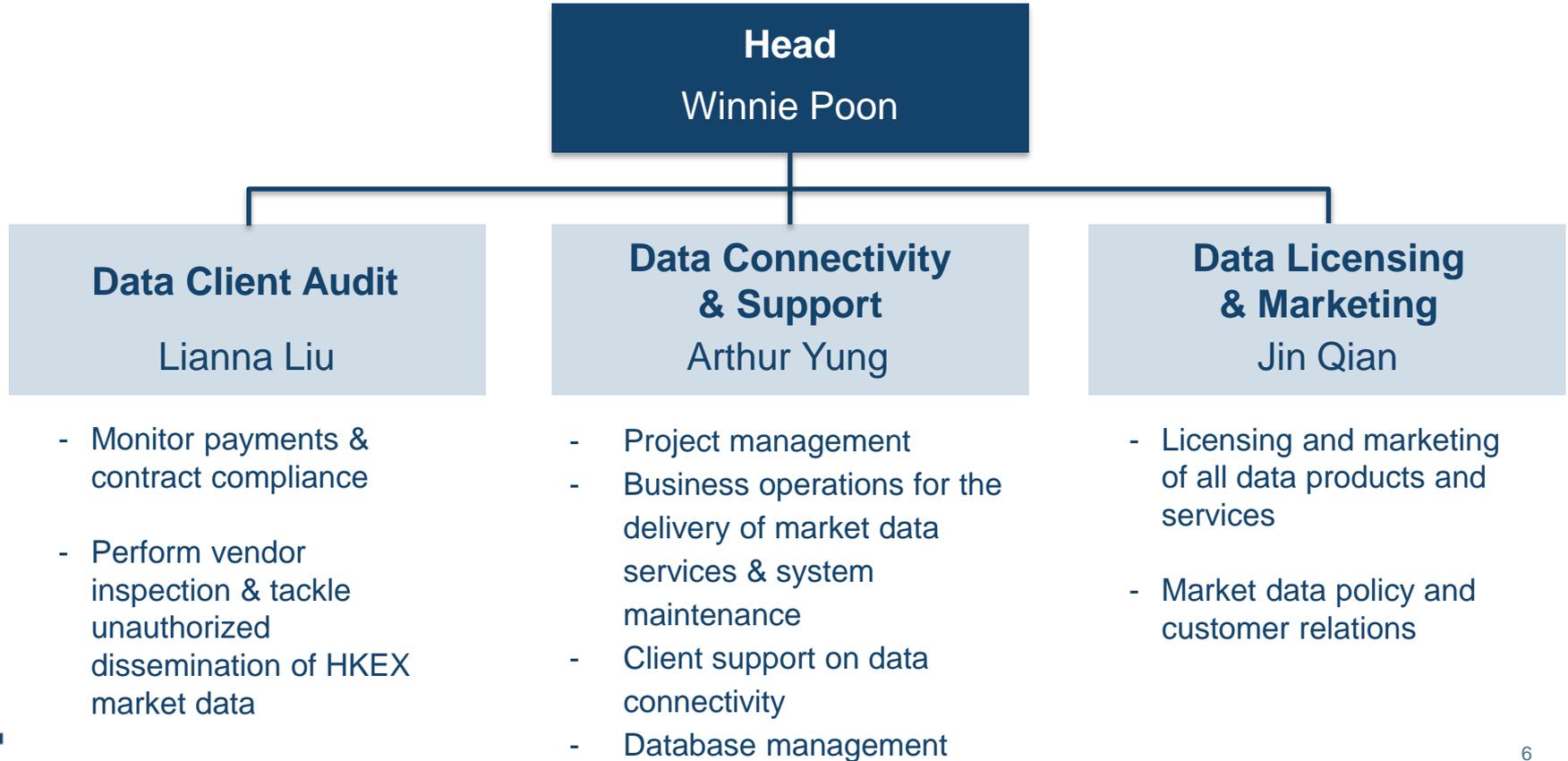


HKEX Information Services Limited (HKEX-IS)

- Wholly-owned subsidiary of the HKEX
- Agents of SEHK and HKFE to deal with market data business

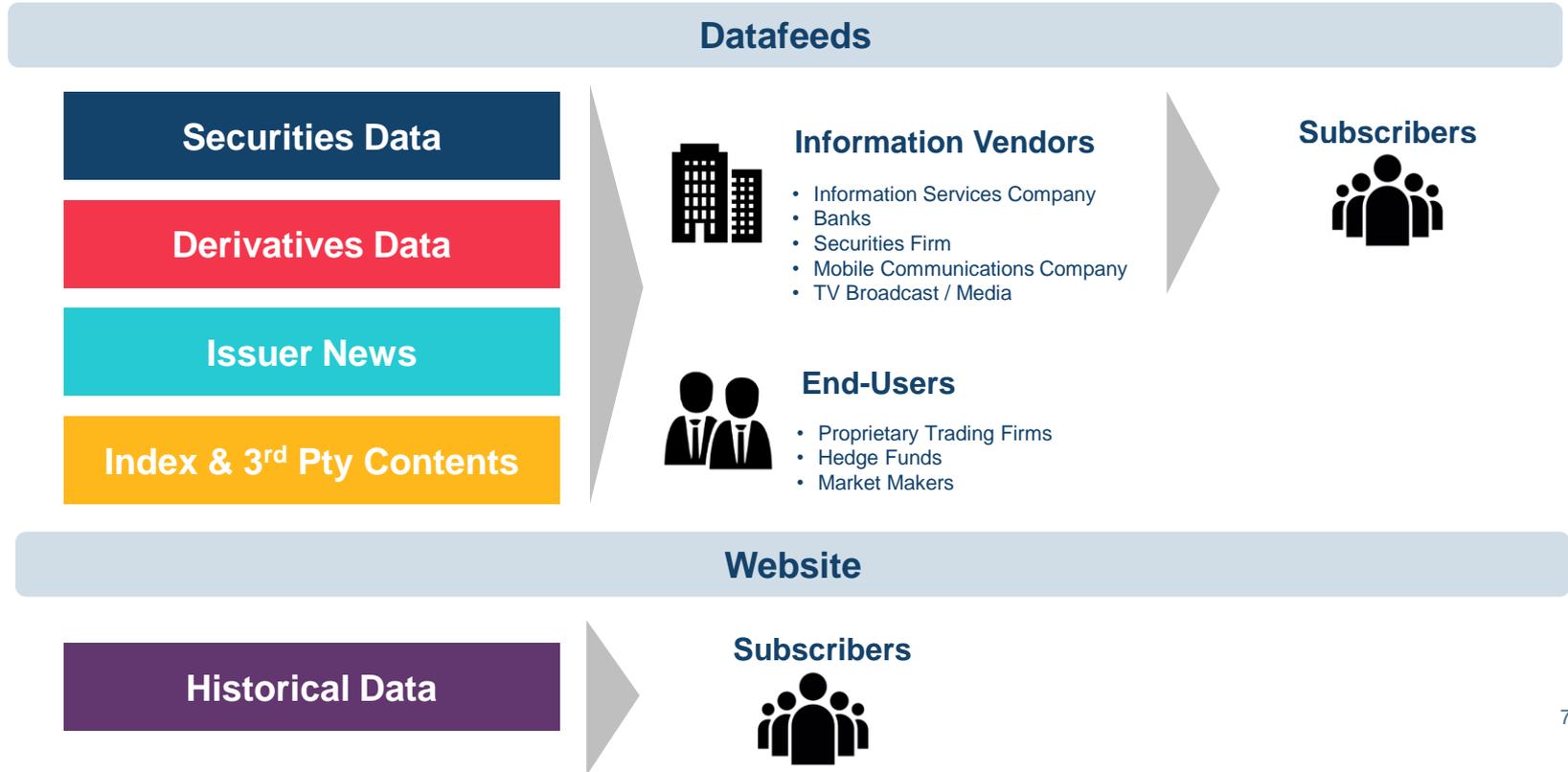


Department Structure



Business Model

- Our fees are regulated by the SFC
- Raw data only



HKEX Orion Market Data (OMD) Platform

- Launched in Sept 2013



✓ Single, integrated platform

✓ Low-latency

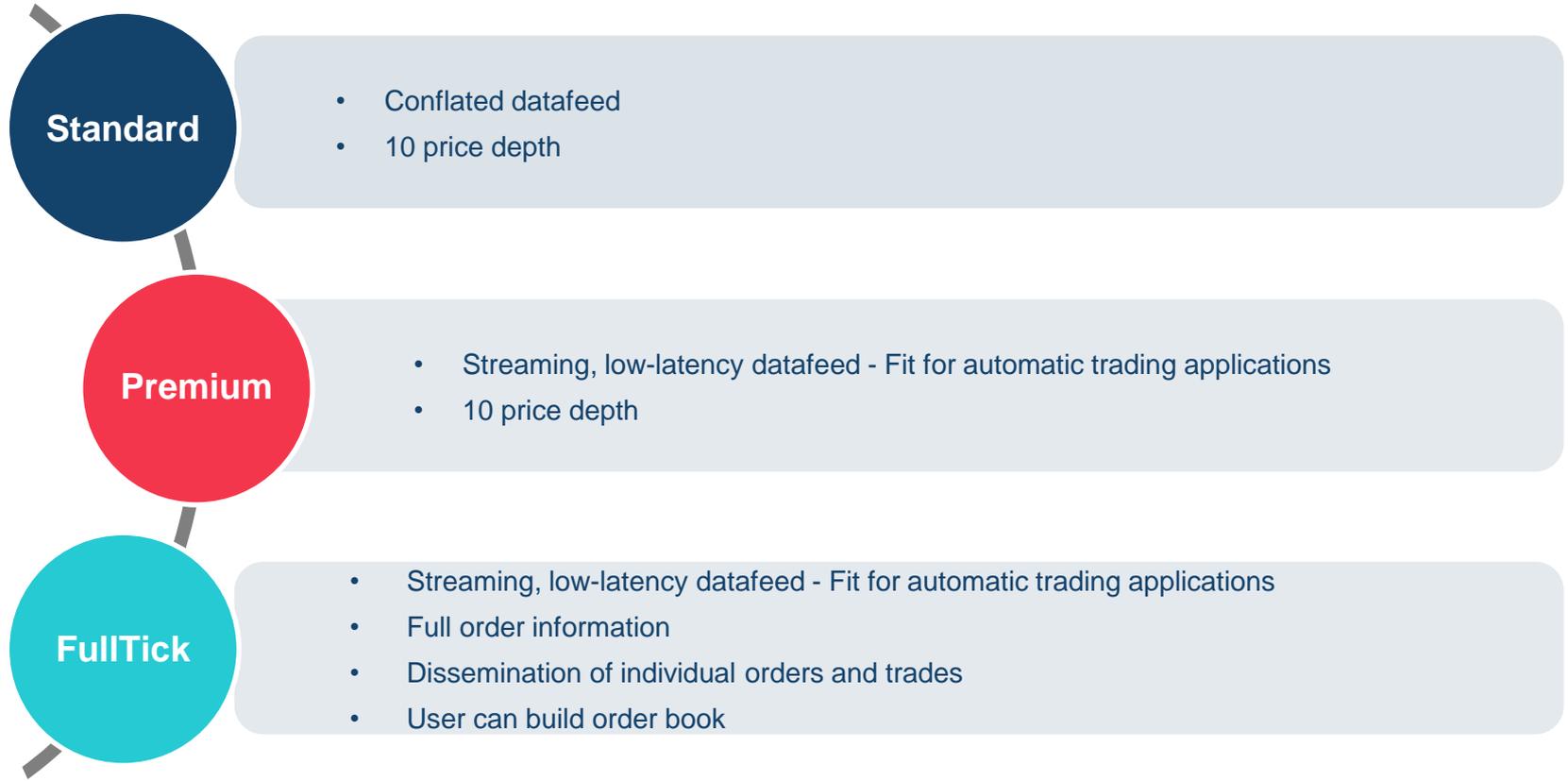
✓ Multiple asset classes

✓ Multiple feeds

✓ Common message protocol



OMD Feeds – Securities and Derivatives Markets



Access Methods

Direct Connection from Mainland:

- HKEX Mainland Market Data Hub (MMDH) in Shanghai



Direct Connection through TKO:

- HKEX Hosting Services
- HKEX authorized third party network providers



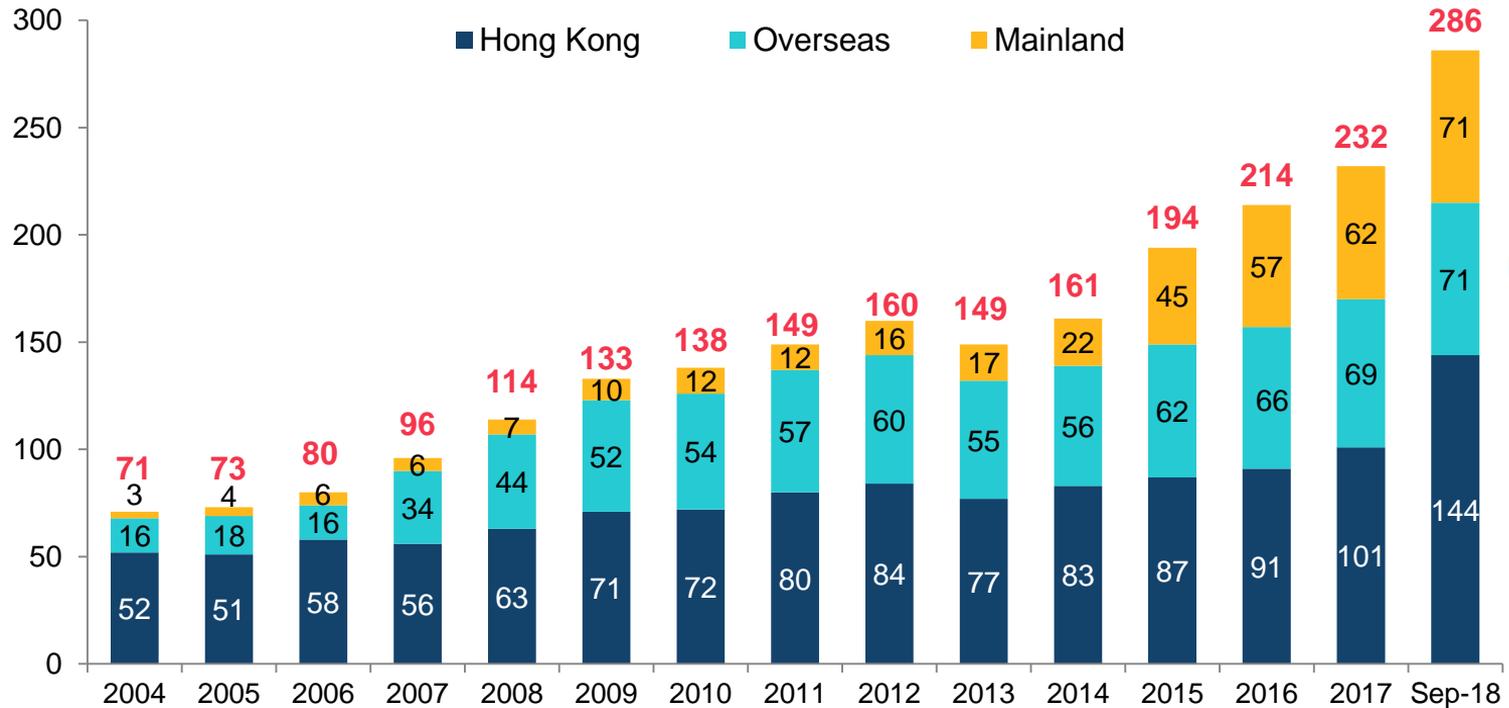
Indirect Connection via:

- Direct Information Vendors
- Application Service Providers



Client Overview

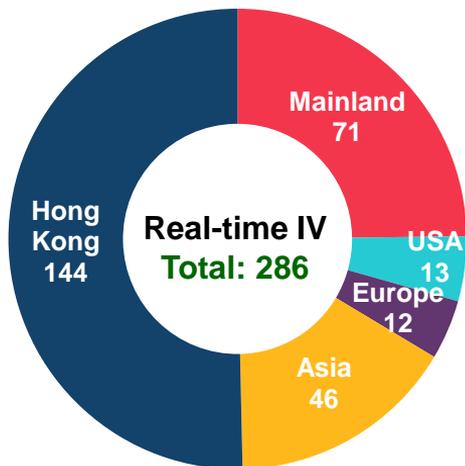
- Number of real-time IVs almost doubled in the past 5 years
- Since the launch of Stock Connect, number of Mainland real-time IVs increased from 22 in 2014 to 71 in Sep 2018



Client Overview (Real Time Data Clients)

- Vendors come from different industry segments
- End-Users are mostly EPs

Market Data Vendor

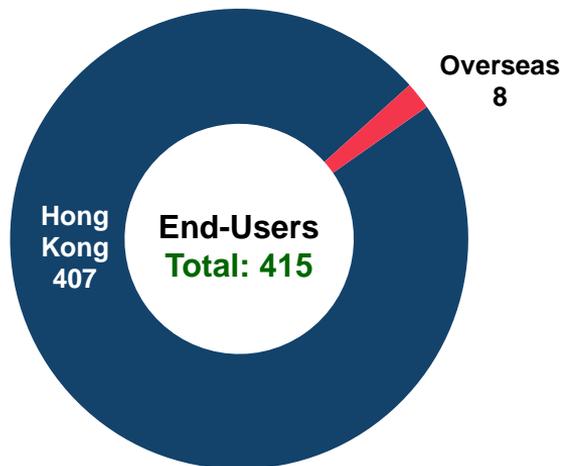


Information business	74
Exchange Participants & affiliates	100
Banks, buy-sides & other financial institutions	56
Mainland Brokers	25

Media	10
Telecommunications service providers	3
System vendors	15
Niche players	3

Market Data End-User

By Region



By Industry

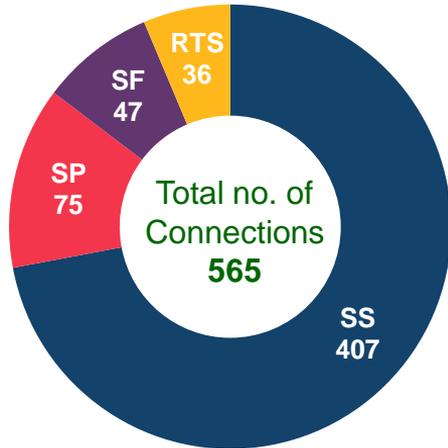
Exchange Participants	404
Non-Exchange Participants	11



OMD Subscription Status of Direct Connection Clients

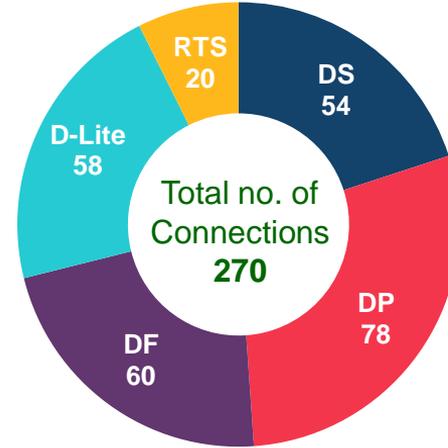
- More than 800 OMD connections serving the market

OMD - Cash



SS: Securities Standard (12 Connections from MMDH)
SP: Securities Premium
SF: Securities FullTick
RTS: OMD-C Additional RTS

OMD - Derivatives



DS: Derivatives Standard
DP: Derivatives Premium
DF: Derivatives FullTick
D-Lite: Derivatives Lite (for EPs)
RTS: OMD-D Additional RTS



Way Forward

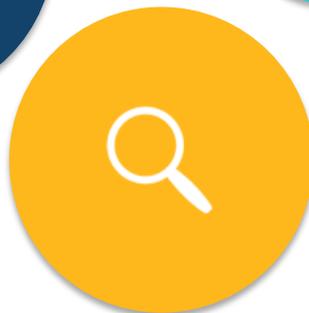
Mainland Market Data Hub (MMDH)

Enrich the content of MMDH and support market participants' direct access via MMDH



Historical Data Products

Promote HKEX historical data products through marketing programs and commercial packages



Reference Data Solution

Introduce new reference data products to support development of structured products and meet market demand



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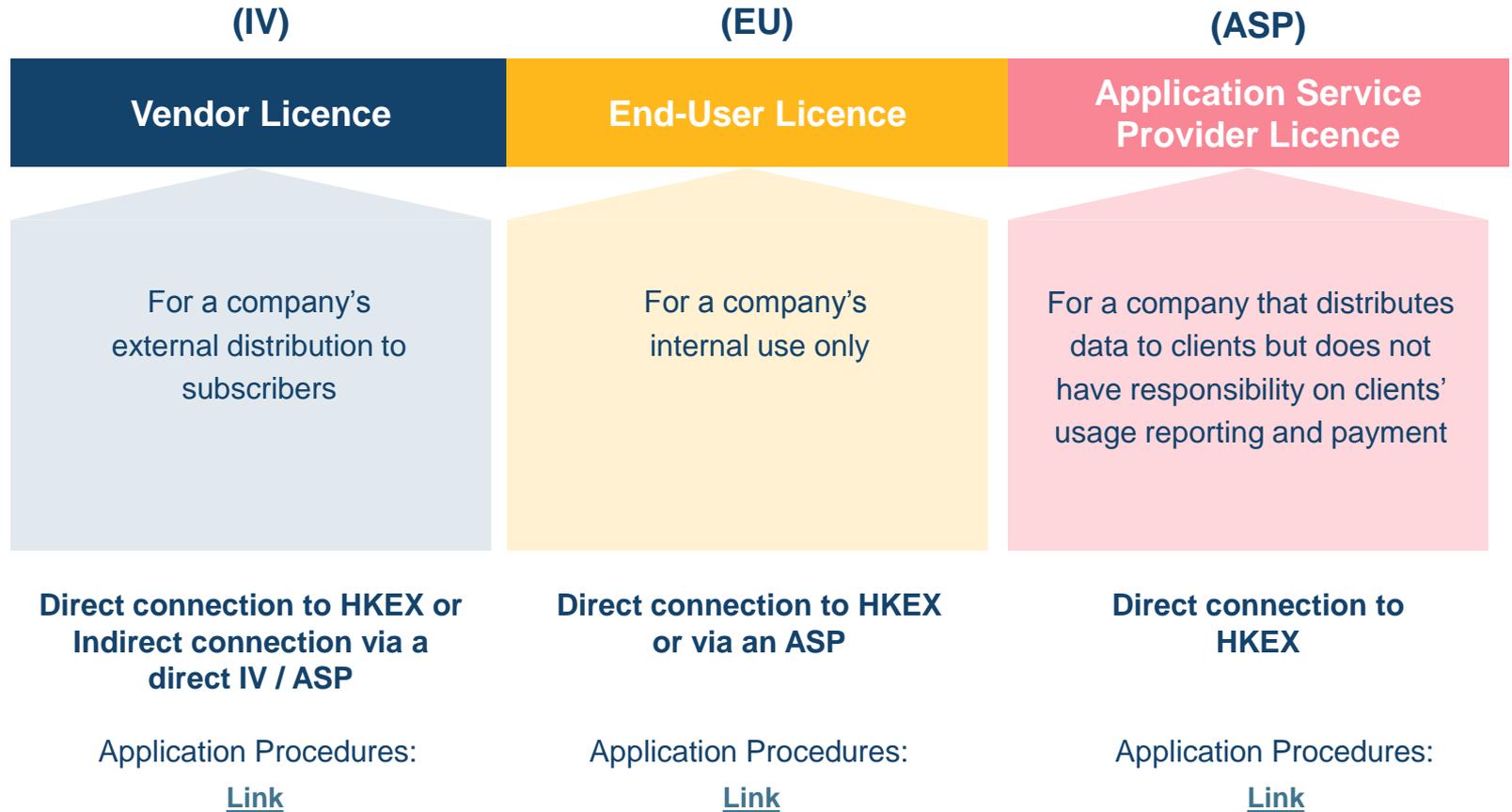
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Hosting Services – Andy Lee, Vice President, Business Development, Hosting Business



Type of Market Data Licences



Application Procedures



Submit relevant
Application forms
([link](#))



HKEX-IS to issue
Preliminary approval



Pay
Deposit / One-off Connection Fee
(if applicable)



Complete
Technical tests
(If applicable)



HKEX-IS to grant
Final approval and issue Agreement



Return
duly signed agreement



Participate in
Connectivity Session / Post Release Test
(If applicable)



Market Data Fees

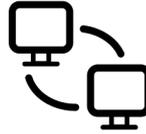
Licence Fee



Quarterly fee according to the types of **Datafeed** Products and Market Data **Licences**

- Vendor
- End-User
- N/A for Application Service Provider

Connection Fee



Quarterly fee according to the types of **connection** to HKEX

- Direct
- N/A for Indirect

Subscriber Fee



Monthly fee according to **real-time services** subscribed by users

- Usage reported and fees paid by Vendor & End-User



Visit our website ([Securities](#) and [Derivatives](#)) for detailed Fee Schedule

Subscriber Fees

- Combination of data contents & usage decides the subscriber fees

Data Contents

Full Book

Full order information

Level 2

Up to 10 price depth

Level 1

Best bid/ask

Basic Market Price

Nominal/Last Traded Price

5-Depth *

Up to 5 price depth

Data Usage

PC/Terminal

Mobile Application

Website

Non-Display

Pager

TV

And more...



* Eligible for Southbound EPs only

Non-Display Usage

- Introduced in 2013

Securities Market Data

(per month per company)

Derivatives Market Data

(per month per company)



Automated Trading Application

HK\$20,000

HK\$10,000



Derived Data (with Tradable Product)

HK\$20,000

HK\$10,000



Others

HK\$400
(Exempted for EPs)

HK\$150
(Exempted for EPs)



Support to Exchange Participants

- OMD data solutions to ensure EPs' smooth migration to new trading platforms

Securities

Open Gateway -> **Orion Central Gateway**

Derivatives

Network Gateway -> **Central Gateway**



Privileges for EPs

- OMD-SS and OMD-DS licence fee waiver for internal use
- Free 2 sets of direct connection for OMD-SS and OMD-DS
- Enjoy up to 20 free units of Level-2 for internal use



Marketing Initiatives

Cash

OMD Free Trial Programme

One-Year Fixed Fee Programme

Fixed Fee Programme on 5 Depths
of Southbound Eligible Stocks

Marketing Programme for Mobile Application Service

Mainland China Discount Programme

Basic Market Price Service

Daily Charge Service Programme

Enhanced Volume Discount Scheme

Promotion Programme on Issuer Information
Feed Service

Derivatives

OMD Free Trial Programme

Derivatives Market Data Distribution
Partnership Programme

Basic Market Price Service

Marketing Programme for New Derivatives Products



Visit the [Market Data Promotions](#) page for full list of Marketing Programmes.

Marketing Initiatives - OMD Free Trial Programme

- Three months of data
- Corporate internal usage only



OMD Real-time Datafeeds

- OMD Premium and FullTick datafeeds for both securities & derivatives markets
- Direct connection
- Waived Licence Fee, Connection Fee, Subscriber Fee

- Historical Full Book for both securities & derivatives markets (binary or CSV format)
- Download from HKEX website
- Waived Subscription Fee



Historical Full Book Data



Visit the [OMD Free Trial Programme](#) page for more details.

Marketing Initiatives - Derivatives Market

- **Applicable to all Information Vendors**



11 regions covered

- Mainland China, Australia, India, Japan, Korea, Malaysia, New Zealand, Singapore, Taiwan, Thailand and Vietnam



Fee waiver (where applicable)

- Subscriber fee for streaming L1 and L2 data services
- Subscriber fee for BMP services
- Licence fee



Data display

IV's services must display real-time data of the following new products:

- Currency Products
- Equity Products
- Commodities Products
- CESC Index Futures



Visit the [New Derivatives Programme](#) page for more details.

Marketing Initiatives - Stock Connect

- **Applicable to Information Vendors with subscribers in Mainland China**

One-Year Fixed Fee Programme



- **HK\$12 million** with unlimited streaming L2 subscription for Mainland subscribers for 12 months

Fixed Fee Programme on 5 Depths of Southbound Eligible Stocks for Mainland Brokers



- **HK\$125,000** per broker per month to offer 5 depths real-time data of southbound eligible stocks to unlimited number of clients within Mainland China

Marketing Programme For Mobile Application Service



- **Discounted** monthly subscriber fee (HK\$13 / HK\$5); and **Waiver** for redistribution fee



Visit the [Market Data Promotions](#) page for respective details.

Marketing Initiatives - Others

- **Applicable to all Information Vendors**

Basic Market Price Service



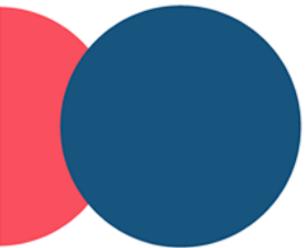
- **Nominal/Last Traded Price only**
- **Fixed monthly subscriber fee**
- **Visible to public and no login required**

Promotion on Issuer News Feed



- **Waived Redistribution Fee for IVs with indirect IIS feed connection**





Reach Us at

MarketData@hkex.com.hk

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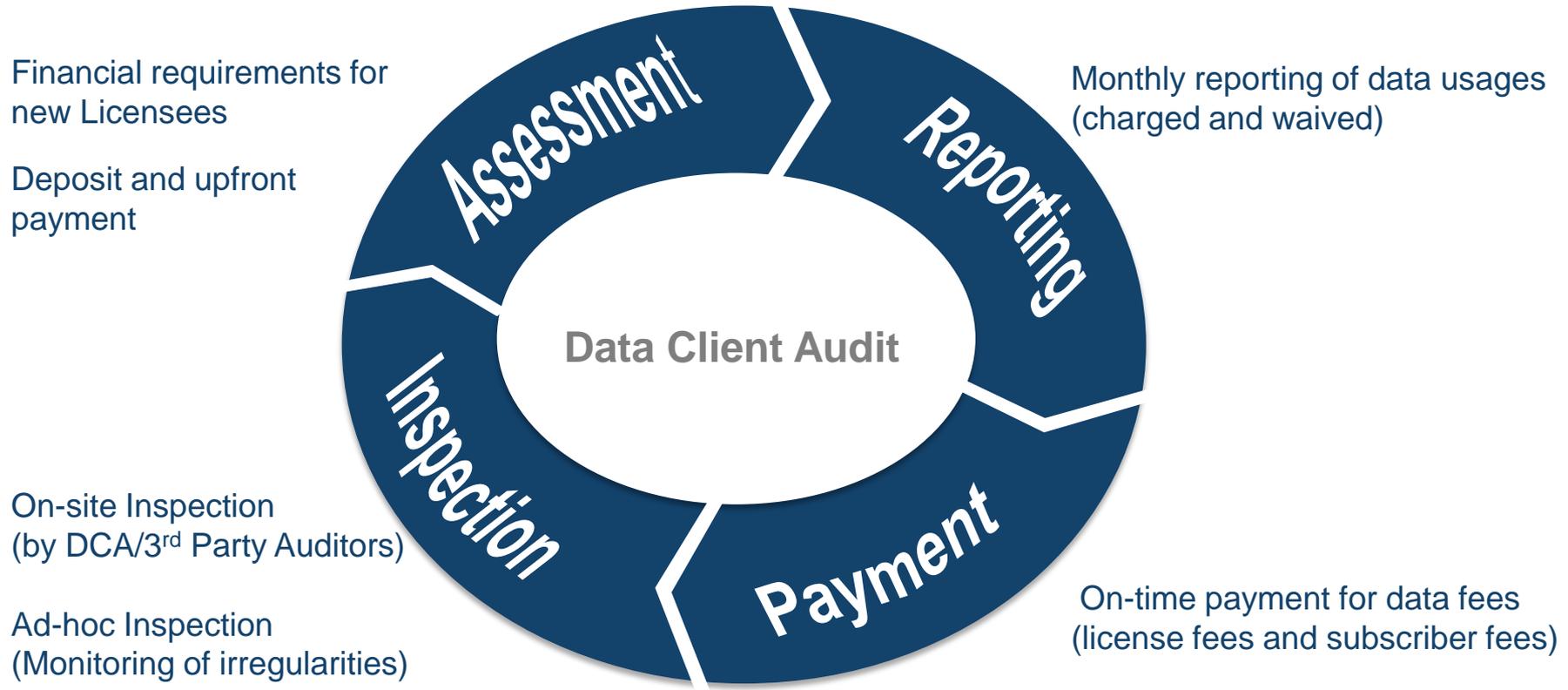
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Market Data Compliance



Reporting Obligation

Submission of Monthly Subscriber/Individual User Report

Vendor Agreement

To : HKEX Information Services Ltd.
 Attention: Mr. Henry Lau/ Ms. Polly Wong, Market Data
 [Tel Enquiry: (852) 2840 3501/ (852) 2840 3841]

Report Month : YYYY/MM
 Fax: (852) 2579 0166
 Softcopy to: ElecReport@hkex.com.hk

Licensee : [COMPANY NAME]
 Contact Person: _____

Contact Tel : _____
(country code) area code + phone number

End User Agreement

INFORMATION
VENDOR
(IV)

Section 1 - Summary of Subscriber Fee

As per Schedule 4 - Memorandum of Permitted Purpose of the Vendor Agreement	Fee Item Code	Discount	Fee per Unit (HK\$)	Total No. of Units	Total Amount (HK\$)	
Basic Market Prices (BMP) Service, Non-Display Usage and Fixed Monthly Fee Service (for Securities Market only)	Non-Display Usage (Automated Trading Application)		20,000.00	0	\$ -	
	Non-Display Usage (Derived Data with Tradable Products)		20,000.00	0	\$ -	
	Non-Display Usage (Others)		400.00	0	\$ -	
	BMP - IV Only		80,000.00	0	\$ -	
	BMP - IV & Related Co.		160,000.00	0	\$ -	
	Fixed Fee Service		125,000.00	0	\$ -	
	Continuous, Per Quote and Per Unit Time Access	Streaming L1		120.00	0	\$ -
			10%	108.00	0	\$ -
			15%	102.00	0	\$ -
			20%	96.00	0	\$ -
		40%	72.00	0	\$ -	
		65%	42.00	0	\$ -	
Streaming L2			200.00	0	\$ -	
		10%	180.00	0	\$ -	
		15%	170.00	0	\$ -	
		20%	160.00	0	\$ -	
	40%	120.00	0	\$ -		
	65%	70.00	0	\$ -		
Mainland Discount - Retail			80.00	0	\$ -	
		10%	72.00	0	\$ -	
		50%	40.00	0	\$ -	
		60%	32.00	0	\$ -	
		67%	26.40	0	\$ -	
		67%	26.40	0	\$ -	
Mainland Discount - Corp.			120.00	0	\$ -	
		10%	108.00	0	\$ -	
		20%	96.00	0	\$ -	

END USER
(EU)

- ✓ Use standard report template customized for you, if the Summary Report doesn't show your subscribed data products, it's likely your MOPP is not up-to-date.
- ✓ Report all "entitled users", e.g. Internal "business support units" and external "free subscriber units".
- ✓ Provide "subscriber information" and "devices" in the Detailed Subscriber Report.



2018 Payment Initiative – Autopay Arrangement

Autopay Licence Fees and Subscriber Fees



Licensees

- Local Licensees
- Licensees pay through local affiliates
- Licensees with local bank accounts

Market Data Fees

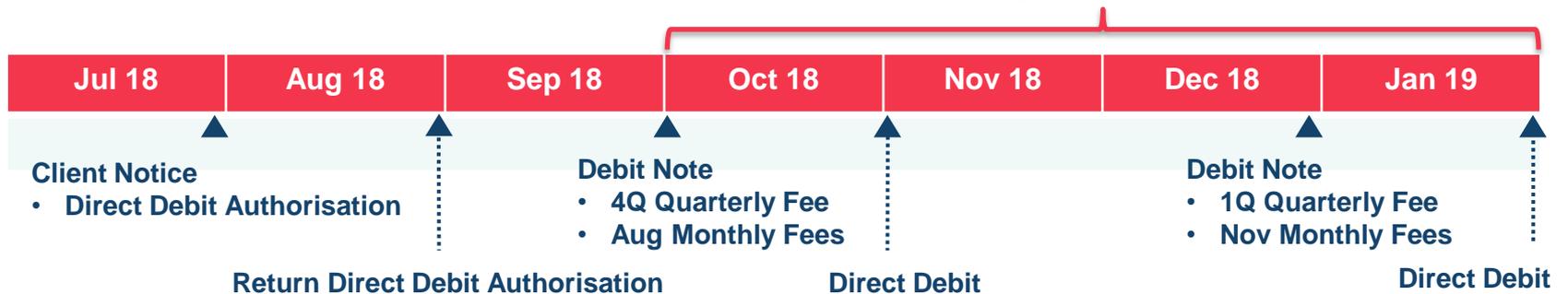
- Licence Fees
- Connection Fees
- Subscriber / Individual User Fees



2018 Payment Initiative – Autopay Arrangement

Timeline

Autopay commencement



NOTE:

Required processing time for autopay authorisation varies from bank to bank, please complete, sign and submit the [Authorisation Form](#) as early as you can to allow sufficient time.



2018 Payment Initiative – Autopay Arrangement

DIRECT DEBIT AUTHORISATION (Generic Set-up) 直接付款授權書

- Note 注意:
- Please tick when applicable. 請在適當的地方加上標記。
 - For HSBC customers, please return the completed form to the Bank or mail to Automatic Payments Centre, Payment Services at P.O. Box 72677, Kowloon Central Post Office, Kowloon, Hong Kong. You may also set up the direct debit authorisation through HSBC Internet Banking. For non-HSBC customers, please complete and return this form to your banker. 如屬匯豐客戶，請將已填妥的表格交回分行或匯豐網上銀行。如屬非匯豐客戶，請將表格填妥後交回分行或與客戶經理聯絡。如非匯豐客戶，請將表格填妥後交回分行或與客戶經理聯絡。
 - Your Direct Debit Authorisation set up request will normally be processed within 4 working days (excluding Saturday, Sunday and public holiday) upon receipt of your form. 在一般情况下，本行將在收到您的直接付款授權書後於4個工作天內（不包括星期六、日及公眾假期）處理您的申請。

Name of Party to be Credited (The Beneficiary) 收款的一方(受益人)		Bank No. 銀行號碼	Branch No. 分行號碼	Account No. 戶行號碼
HKEX INFORMATION SERVICES LTD		0 0 4	7 4 1	5 7 5 6 6 0 0 1
My/Our Bank Name and Branch 本人(等)的銀行及分行名稱		Bank No. 銀行號碼	Branch No. 分行號碼	My/Our Account No. 本人(等)的戶行號碼
My/Our Name(s) as recorded on Statement/Passbook (in Block Letters) 本人(等)姓名/戶數(請以英文填寫)				
Contact Telephone No. 聯絡電話號碼	Maximum Limit for 最高付款限額 Note: 請於本表格的"Additional" or "Additional" 欄位填上，以便本行/戶數在有需要時通知本人(等)。	Expiry Date (day/month/year) 有效期日(日/月/年) Note: 請於本表格的"Additional" or "Additional" 欄位填上，以便本行/戶數在有需要時通知本人(等)。		
	Each Payment 每次	Each Month 每月		
My/Our Address as recorded on Statement/Passbook 本人(等)在結單/存摺上所記錄的地址				
Debtor Name (in Block Letters) 付款人名稱(請以英文填寫)		Debtor Reference (Compulsory Field) 付款人編號(必須填寫) (Reference between years off and the party to be credited 與客戶所收票一方有關)		
Declaration (For HSBC Customer Only) 聲明(只適用於匯豐客戶)				
<p>1. I/We hereby authorise my/our above named bank to effect transfer from my/our account to that of the above named beneficiary in accordance with such instructions as my/our bank may receive from the beneficiary and/or its banker and/or its banker's correspondent from time to time provided always that the amount of any one such transfer shall not exceed the limit indicated above. 本人(等)授權匯豐本人(等)的上述銀行(或匯豐本人(等)的分行或匯豐本人(等)的分行)在收到受益人及/或其銀行及/或其銀行的指示後，隨時將款項由本人(等)的戶行/戶數轉往上述指定人士(等)。</p> <p>2. I/We agree that my/our bank shall not be obliged to ascertain whether or not notice of any such transfer or reversal notice has been given to me/us. 本人(等)同意本人(等)的銀行毋須核實任何有關轉帳通知或反轉帳通知是否已交予本人(等)。</p> <p>3. I/We jointly and severally accept full responsibility for any overdraft (or increase in existing overdraft) on my/our account which may arise as a result of any such transfer(s). 本人(等)共同及個別承擔全部責任。</p> <p>4. I/We understand that I/We must maintain sufficient funds in the account one business day (before the close of branch banking hours) before the transfer date (as specified in the instructions received by my/our bank from the beneficiary and/or its banker and/or its banker's correspondent from time to time) for the transfer authorised herein. I/We agree that should there be insufficient funds in my/our account to meet any transfer authorised herein, my/our bank will be entitled, at its absolute discretion, not to effect such a transfer in which event the Bank may levy its usual charges and may cancel this authorisation at any time without notice to me/us. For the avoidance of doubt, the Bank may cancel this authorisation at its sole discretion at any time without prior notice. 本人(等)明白本人(等)須在指定轉帳日期(即匯豐本人(等)的銀行收帳日期或匯豐本人(等)的分行/分行營業時間內)在戶行/戶數維持足夠款項以便在指定轉帳日期(即匯豐本人(等)的分行/分行營業時間內)由匯豐本人(等)的銀行/分行/分行向指定人士(等)轉帳。本人(等)同意本人(等)的銀行/分行/分行在收到受益人及/或其銀行及/或其銀行的指示後，隨時將款項由本人(等)的戶行/戶數轉往上述指定人士(等)。</p> <p>5. This direct debit authorisation shall have effect until further notice or until the expiry date written above (whichever shall first occur). I/We agree that if no transaction is performed on my/our account under such authorisation for a continuous period of 30 months, my/our bank reserves the right to cancel the direct debit arrangement without prior notice to me/us, even though the authorisation has not expired or there is no expiry date for the authorisation. 本人(等)同意此項直接付款授權書將由發出轉帳日期起生效，直至本人(等)另行通知或上述有效期滿為止(以先發生者為準)。本人(等)同意本人(等)的銀行/分行/分行在收到受益人及/或其銀行及/或其銀行的指示後，隨時將款項由本人(等)的戶行/戶數轉往上述指定人士(等)。</p> <p>6. I/We agree that any notice of cancellation or variation of this authorisation which I/we may give to my/our bank shall be given at least two working days prior to the date on which such cancellation/variation is to take effect. 本人(等)同意本人(等)取消或更改本授權書的任何通知，須於取消/更改生效前最少兩個工作天之前交予本人(等)的銀行。</p>				
My/Our Bank Account Signature(s) 本人(等)銀行戶口的簽名				
X				
For Bank Use Only 銀行專用	Remarks	Branch Chop		
>> APC-NSC		Staff ID		

Open Limit

SIGN AND MAIL / DELIVER

Authorisation Form

To: HKEX Finance Division
23/F, One Exchange Square
8 Connaught Place
Central, Hong Kong

Same signature as your bank account signature



New Bank Account for Payments

Payment Methods

Autopay

Transfer / Wire

Deposit

New

HSBC bank account is used for all Market Data payments by all means

Bank Account Details

Beneficiary : HKEX-IS

Name of Bank : HSBC

Account No. : 004-741-057566001

SWIFT Code : HSBCHKHH

*Current Hang Seng Bank account will remain active during the transition until **31 Dec 2018***



Free Display Units

- 20 FREE Cash & Derivatives Display Units for eligible Exchange Participants (EPs)

Securities Market Data



SEHK EPs

Effective Mar 2015

- ❖ Up to 20 free terminal units
- ❖ For EP's own internal usage **NOT** for group companies or clients
- ❖ **NO** claims for retrospective periods



Up to 20 terminal units for each EP directly connected with HKEX or with licenced vendors

through

Monthly Subscriber Report

Individual User Report

or

Quarterly Declaration Claim Form

Derivatives Market Data



HKFE EPs

SEHK Stock Options Participant

Effective Apr 2018

NEW

- ❖ Up to 20 free terminal units
- ❖ Upon full migration to Central Gateway
- ❖ For EP's own internal usage **NOT** for group companies or clients
- ❖ **NO** claims for retrospective periods



Free Display Units

Claims submitted via Monthly Reports

Summary Individual User Report for Securities Market Data

To: HKEC Information Services Ltd.
 Attention: Mr. Henry Law/ Ms. Polly Wong, Market Data
 [Tel Enquiry: (852) 2840 3501/ (852) 2840 3841]

Report Month: 2018/09
 Fax: (852) 2579 0166
 Softcopy to: ElecReport@hkex.com.hk

Licensee: _____
 Contact Person: _____

Contact Tel.: (852) 2545 3298
(country code) area code - phone number

Free Units

Section I - Summary of Individual User Fee

As per Schedule 4 - Memorandum of Permitted Purpose of the Vendor/ End-User Agreement	Fee Item Code	Discount	Fee per Unit (HK\$)	Total No. of Units	Total Amount (HK\$)
Uobest Securities Company Limited - Continuous, Per Quote and Per Unit Time	Free Units under Trading Rights for EP (2 Units per Trading Right)		0.00	4	-
	Free Units for SEHK EP (max. 20 units)		0.00	8	-
	Streaming L2		200.00	0	-
	Non-Display Usage (Others)		400.00	0	-
	Non-Display Usage (Others) - waived for EPs		0.00	4	-

Detailed Individual User Report

Report Month: 2018/09 From: _____
 Product Group: Securities Market Data

Licensee Code <small>(filled by HKE X-IS)</small>	Reporting Month <small>[YYYY/MM]</small>	Subscriber ID	Name	Address	Country Code	Type of Subscriber Device <small>(refer to Appendix I)</small>
		A001	Chan Ka Ming	Central Branch	HKG	Terminal
		A002	Lee Siu Ping	Central Branch	HKG	Terminal
		A003	Chan Ka Yan	Central Branch	HKG	Terminal
		A004	Cheung Siu Ming	Central Branch	HKG	Terminal
		B001	KK Kwok	Central Branch	HKG	Terminal
		B002	Iris Lee	Central Branch	HKG	Terminal
		R003	Carol Lee	Central Branch	HKG	Terminal

Claims made on Declaration (hkex.com.hk)

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

Declaration Form For 20 Free Cash / Derivatives Market Data Display Terminals

For Exchange Participants (EPs) who are currently subscribing real-time Level 1/Level 2 Cash and/or Derivatives Market Data Products from HKEC-IS licensed information vendors (IVs) and would like to claim for **up to 20 free Cash and Derivatives Market Data display terminal units respectively**, should submit this completed Declaration Form to HKEC-IS.

Part A: General Information (please fill in as applicable)

Name of SEHK Participant and Participant ID:	
Contact Person:	Telephone No.:
Name of HKFE Exchange and/or SEHK Stock Options Participant* and HKATS Customer Code:	
<small>* please delete as applicable</small>	
Contact Person:	Telephone No.:
For the Reporting Period:	From To

Part B: Subscription Status of Market Data Display Terminals

We hereby declare and confirm that we have the following display terminals and/or User IDs with Cash and/or Derivatives Market Data subscribed:-

From HKEC licensed IVs **Number of Terminals / User IDs**
Please check the appropriate box 1st Month 2nd Month 3rd Month

i) Securities Market Data (including NSTD)

L1 @HK\$120 L2 @HK\$200

(Name of IV _____)

L1 @HK\$120 L2 @HK\$200

(Name of IV _____)

L1 @HK\$120 L2 @HK\$200

(Name of IV _____)

ii) Derivatives Market Data

L1 @HK\$25 L2 @HK\$75

(Name of IV _____)

L1 @HK\$25 L2 @HK\$75



Market Data Inspection Programme



On-site inspections are performed by Data Client Audit Team and independent audit firms on behalf of HKEX-IS

Ensure accurate reporting for display and non-display market data usages

- Report all internal and external users with entitlement
- If reporting via an Information Vendor make sure payment is made accordingly
- Concurrent access is subject to Subscriber Fees

Keep 7 years of audit trail of

- Entitlement record, system / user log, payment record, etc.
- Subscriber address / IP for specific Marketing Programmes



Control Requirements

Marketing Programmes

- Mainland Discount Programme
- Mobile Application Service

Technical control preventing access to Real-time Market Data from outside Mainland China (e.g. Tracking User IP)

- New Derivatives Products

Market Data Fees waived for Derivatives Products ONLY for specific regions - *Mainland China, Japan, Korea, Singapore, Taiwan, Australia, New Zealand, Malaysia, India, Thailand and Vietnam*

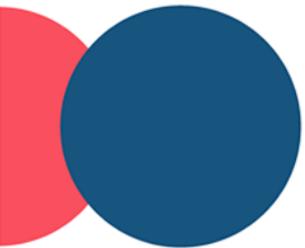
- Basic Market Prices (BMP) Service

ONLY Snapshot Market Data, NO automatic update, NO more than Top 20 Securities/Derivatives and 20 Securities/Derivatives Portfolio Valuation

- Per Quote Service

Adjust quote meter to cover Closing Auction Session (CAS) for provision of Real-time Market Data





Reach Us at

DataClientAudit@hkex.com.hk

AGENDA

- 1 Opening Remarks – Winnie Poon, Head of Market Data
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– Jin Qian, Head of Data Licensing and Marketing, Market Data
- 3 Reporting, Payment Arrangement and Audit Programme
– Lianna Liu, Head of Data Client Audit, Market Data
- 4 Introduction of OMD Platforms, its Features and Technical Arrangement
– Arthur Yung, Head of Data Connectivity and Support, Market Data**
- 5 Hosting Services – Andy Lee, Vice President, Business Development, Hosting Business



Introduction of Orion Market Data Platform (OMD) – Overview

Real-time Market Data Feed

OMD-C

Orion Market
Data -
Securities

OMD-D

Orion Market
Data -
Derivatives

OMD-CC

Orion Market
Data – China
Connect

OMD Index

Complimentary
feed
(not for
redistribution)

IIS News

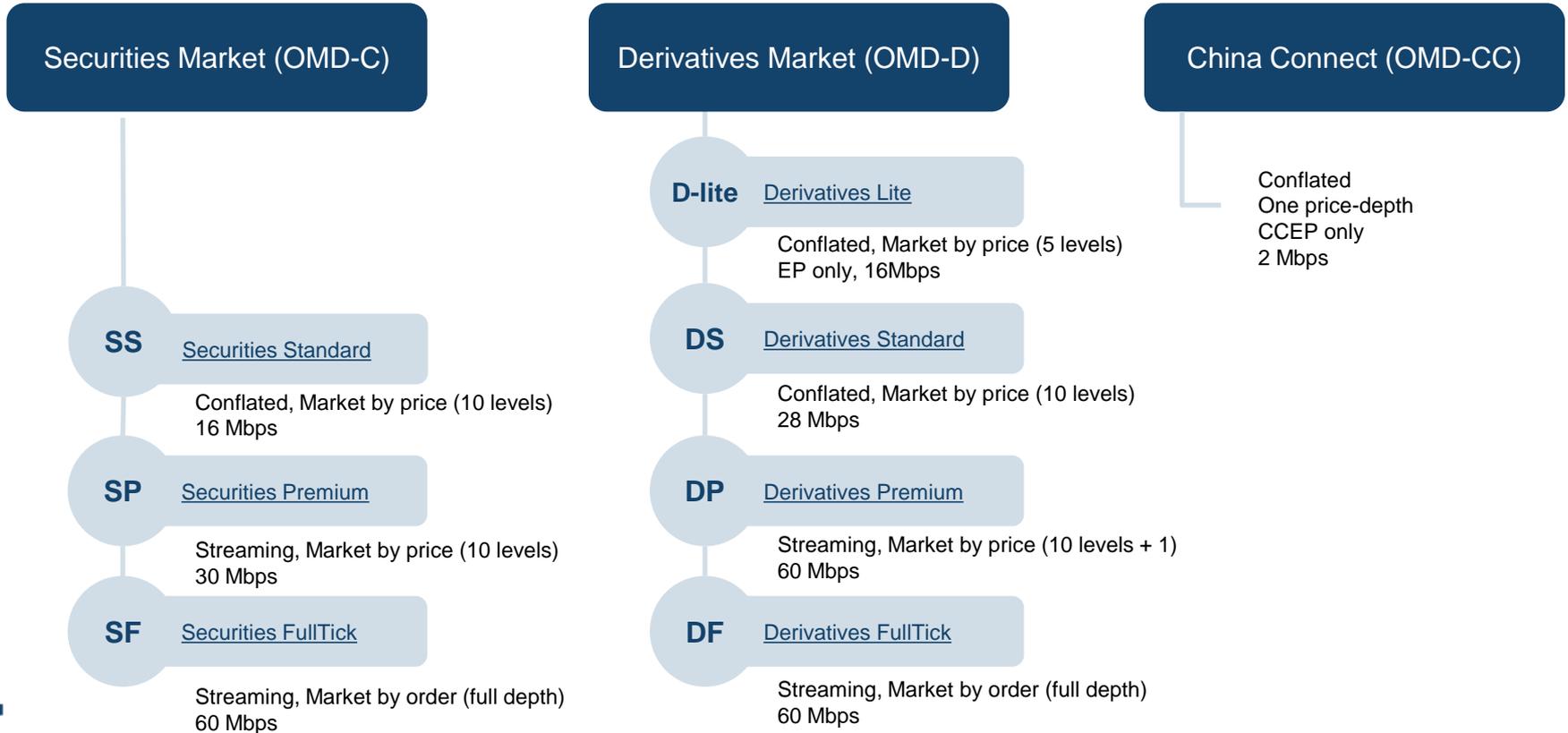
Issuer
Information
feed Service

MMDH

Mainland
Market Data
Hub



Introduction of Orion Market Data Platform (OMD) – Overview



Introduction of Orion Market Data Platform (OMD) – OMD-C and OMD-D



Reference
Data



Market
Status



Instrument
Status



Order and
Trade



Statistics



Trading News



Introduction of Orion Market Data Platform (OMD) – Overview

OMD Index

- Over 60 indices
- Indices from Hang Seng Data Services, China Exchange Services (CES), China Securities Index Company (CSIC), S&P, Thomson Reuters
- Complimentary feed in OMD

MMDH

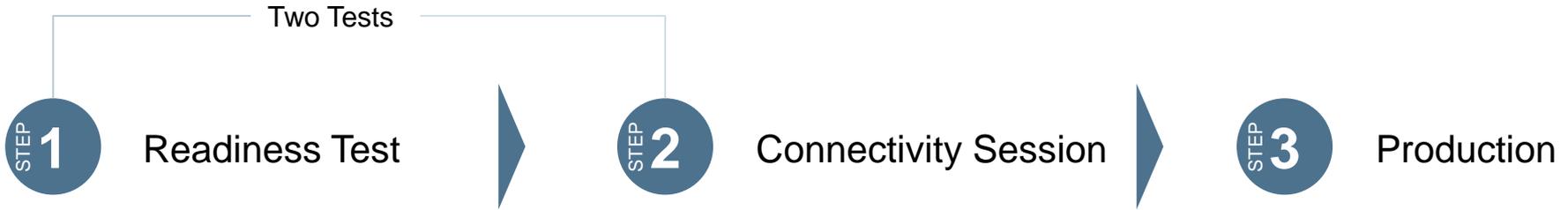
- Point-of-Presence (PoP) in Shanghai
- OMD-C SS
- OMD Index

IIS

- Trading news
- Announcements from HKEX listed companies and issuers (e.g., reorganization, change of key executives, dividend announcement, profit warnings, changes to share capital, Board meeting and AGM notification, etc)



Introduction of Orion Market Data Platform (OMD) - On-boarding



Prerequisite:

- Licence application approved
- Testing line installed

Test to do:

- Conduct testing according to an Answer Book

Exclusion:

- Using Independent Software Vendor (ISV) software; or
- End-user Licence and do not require Retransmission ID

Prerequisite:

- Readiness Test passed (if needed)
- Production line installed

Test to do:

- Validate production configuration



Introduction of Orion Market Data Platform (OMD) – ISV

What is Independent Software Vendor (ISV)?

- Companies authorized by HKEX-IS to provide certified market data software (i.e. feed handlers) to HKEX-IS's licensees



Benefits

- Reduces time and cost for getting onboard production market data by using a readily available software instead of building it in-house
- Facilitates the readiness of direct connection clients for the rollout of HKEX's initiatives

Who can be an ISV?

IV, EU, ASP or any software company that makes and sells market data software to other clients.

Who can benefit from an ISV?

Any market data licensees who would like to obtain direct market data connection but saving development and testing costs.



Introduction of Orion Market Data Platform (OMD) – ISV

The screenshot displays the HKEX website's navigation and content structure. At the top left is the HKEX logo (香港交易所). The top right contains utility links for Font Size, About HKEX, and Related Sites (LME), along with a search bar and user account icons. The main navigation bar includes links for MARKET DATA, PRODUCTS, SERVICES, LISTING, NEWS, and MUTUAL MARKET. The breadcrumb trail reads: Services \ Market Data Services \ Real Time Data Services \ Testing Services. The main heading is 'INDEPENDENT SOFTWARE VENDOR'. A left-hand sidebar menu lists: Real Time Data Services, Overview, Data Licensing, Testing Services, Independent Software Vendor (highlighted in red), Test Application Form for Direct Connection Information Vendors / End-Users (Existing Clients / New Clients), and Client Notices. The main content area lists: Requirements, Application Procedures & Forms, Guiding Note (with a PDF icon), Price (Fee Schedule), List of Independent Software Vendor (with a PDF icon and highlighted by a red box), and FAQ.



Introduction of Orion Market Data Platform (OMD) – Test Application

HKEX
香港交易所

Font Size A A A | About HKEX ▼ | Related Sites: LME ▼ | Search Website

MARKET DATA | PRODUCTS | SERVICES | LISTING | NEWS | MUTUAL MARKET

Services \ Market Data Services \ Real Time Data Services

TESTING SERVICES

Market Data Services

- Real Time Data Services ▼
- Overview ▶
- Data Licensing ▶
- Testing Services**
- Independent Software Vendor
- Test Application Form for Direct Connection Information Vendors / End-Users (Existing Clients / New Clients)

TESTING SERVICES

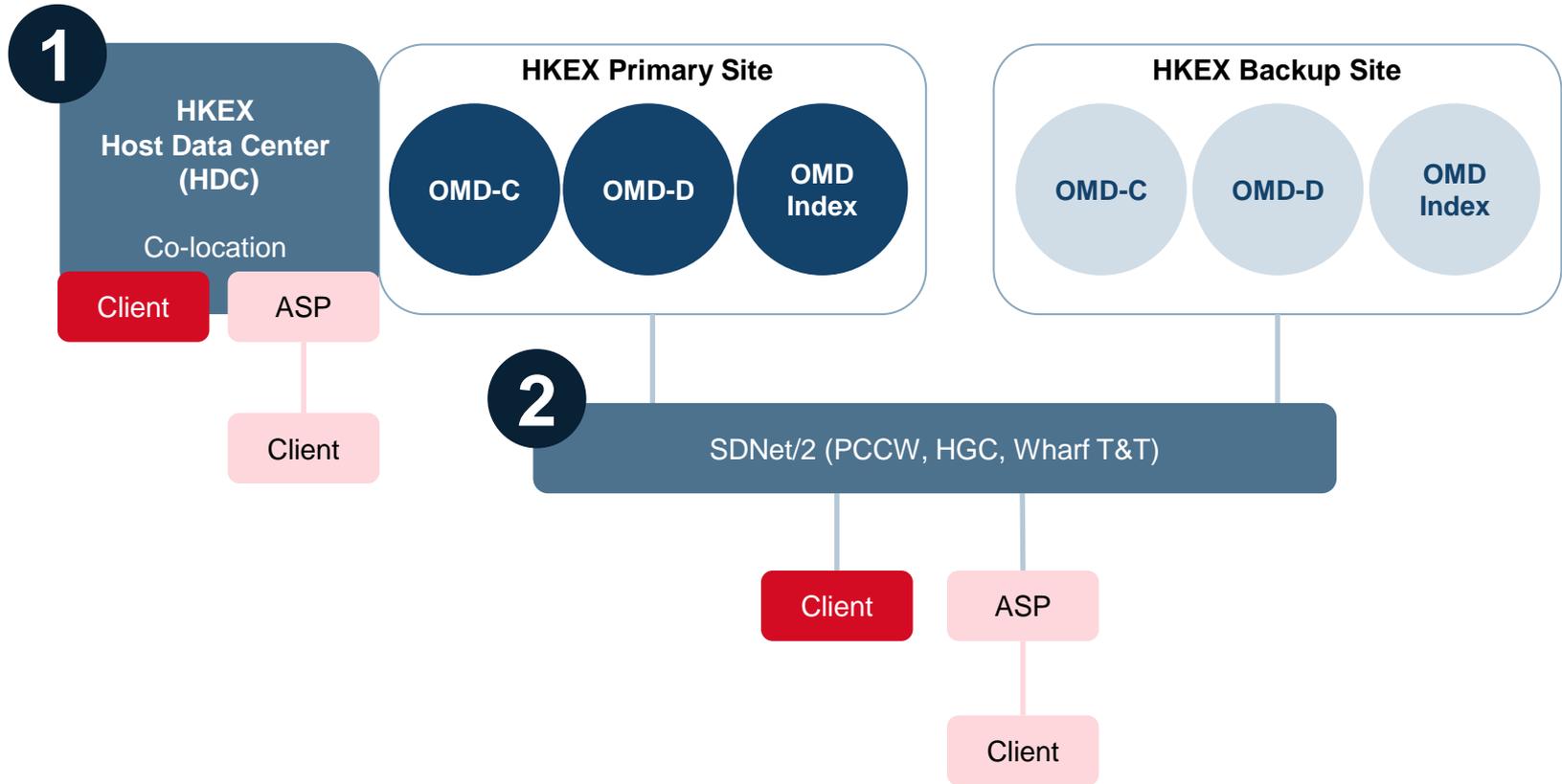
- + Independent Software Vendor
- + **Test Application Form for Direct Connection Information Vendors / End-Users (Existing Clients / New Clients)**
- PDF Clarification on Test Charges for Market Data Testing



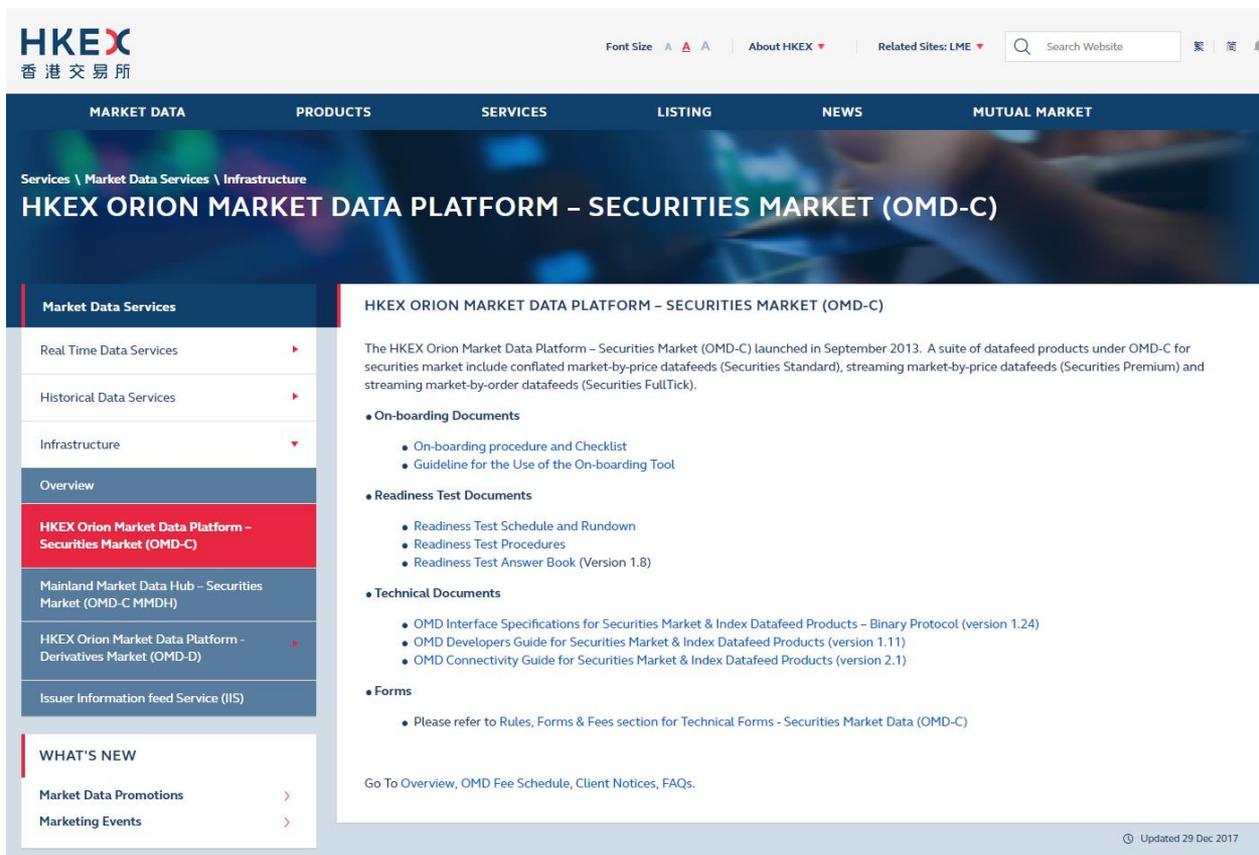
Introduction of Orion Market Data Platform (OMD) – Test Application



Introduction of Orion Market Data Platform (OMD) – OMD Connectivity



Introduction of Orion Market Data Platform (OMD) – Further Information



HKEX
香港交易所

Font Size A A A | About HKEX | Related Sites: LME | Search Website

MARKET DATA | PRODUCTS | SERVICES | LISTING | NEWS | MUTUAL MARKET

Services \ Market Data Services \ Infrastructure

HKEX ORION MARKET DATA PLATFORM – SECURITIES MARKET (OMD-C)

Market Data Services

- Real Time Data Services
- Historical Data Services
- Infrastructure
- Overview
- HKEX Orion Market Data Platform – Securities Market (OMD-C)**
- Mainland Market Data Hub – Securities Market (OMD-C MMDH)
- HKEX Orion Market Data Platform - Derivatives Market (OMD-D)
- Issuer Information feed Service (IIS)

WHAT'S NEW

- Market Data Promotions
- Marketing Events

HKEX ORION MARKET DATA PLATFORM – SECURITIES MARKET (OMD-C)

The HKEX Orion Market Data Platform – Securities Market (OMD-C) launched in September 2013. A suite of datafeed products under OMD-C for securities market include conflated market-by-price datafeeds (Securities Standard), streaming market-by-price datafeeds (Securities Premium) and streaming market-by-order datafeeds (Securities FullTick).

- **On-boarding Documents**
 - On-boarding procedure and Checklist
 - Guideline for the Use of the On-boarding Tool
- **Readiness Test Documents**
 - Readiness Test Schedule and Rundown
 - Readiness Test Procedures
 - Readiness Test Answer Book (Version 1.8)
- **Technical Documents**
 - OMD Interface Specifications for Securities Market & Index Datafeed Products – Binary Protocol (version 1.24)
 - OMD Developers Guide for Securities Market & Index Datafeed Products (version 1.11)
 - OMD Connectivity Guide for Securities Market & Index Datafeed Products (version 2.1)
- **Forms**
 - Please refer to Rules, Forms & Fees section for Technical Forms - Securities Market Data (OMD-C)

Go To Overview, OMD Fee Schedule, Client Notices, FAQs.

Updated 29 Dec 2017



Historical Data

Order Book / Trade

- Full book
- Trade Tickers File

Statistics

- Day-end / Month-end closing data
- Stock Price data
- Daily Quotation

Reference Data

- Stock Master File
- Stock Static Data

Corporate Documents

- Issuer Annual Reports
- Corporate Documents
- Ex-Entitlement notification
- Entitlement record



Historical Data

- Available in HKEX website for online subscription:

Services \ Market Data Services \ Historical Data Services

SUBSCRIPTION

Market Data Services

- Real Time Data Services
- Historical Data Services
- Subscription**
- Technical Documents
- Infrastructure

Historical Data

[Home](#)
[Historical Data](#)
[Subscription](#)
[My Account](#)
[Data Download](#)

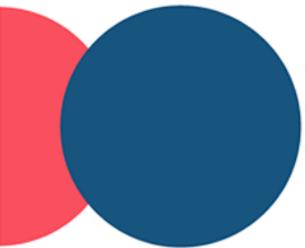
[Contact Us](#)
[T&C](#)
[Help/FAQ](#)

[Securities Market](#) |
 [Derivatives Market](#) |
 [Shanghai and Shenzhen Connect Data](#)

Securities Market

Order Book / Trade	Issue Basis	Delivery Method	Price (HK\$)
<ul style="list-style-type: none"> Historical Full Book - Securities Market (Binary Format) provides information on every order and trade of Main Board and GEM stocks in binary format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$5,000/ Month
<ul style="list-style-type: none"> Historical Full Book - Securities Market (CSV Format) provides information on every order and trade of Main Board and GEM stocks in CSV format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$5,000/ Month
<ul style="list-style-type: none"> Historical Order Book and Statistics Update - Securities Market provides intra-day order book and statistics information recorded on the HKEX's Main Board and GEM stocks in CSV format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$2,500/ Month
<ul style="list-style-type: none"> Bid and Ask Record - Main Board & GEM (Daily File) provides intra-day bid and ask information on Main Board and GEM stocks 	Daily		\$500/ Month
<ul style="list-style-type: none"> Bid and Ask Record - Main Board & GEM (Monthly File) provides intra-day bid and ask information on Main Board and GEM stocks 	Monthly		\$500/ Month
<ul style="list-style-type: none"> Trade File - Securities Market (Binary Format) provides trade details, including trade time, price and quantity, of each transaction recorded on the Main Board and GEM in binary format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$2,500/ Month
<ul style="list-style-type: none"> Trade File - Securities Market (CSV) provides trade details, including trade time, price and quantity, of each transaction recorded on the Main Board and GEM in CSV format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$2,500/ Month
<ul style="list-style-type: none"> Trade Tickers File - Securities Market (Binary Format) provides information on each trade ticker in binary format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$1,500/ Month
<ul style="list-style-type: none"> Trade Tickers File - Securities Market (CSV Format) provides information on each trade ticker in CSV format. File is available on a daily basis, normally at around 10:00pm. 	Daily		\$1,500/ Month





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IVSupport@hkex.com.hk

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The HKEX Data Centre

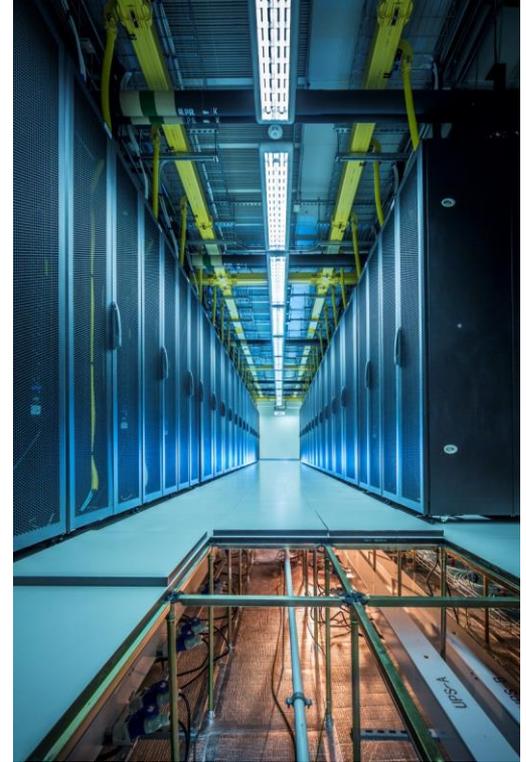
- Total floor area of 31,400 square meters
- State-of-the-art purpose built facility, owned and operated by HKEX
- Designed to meet Tier 4 and LEED Gold Rating specifications
 - Dual incoming utility power from separate substations
 - Dual TBE rooms and risers to support Telco diversity
- HKEX primary Enterprise Data Centre
 - Production site for Securities & Derivatives markets, Market Data and Clearing
- HKEX Hosting Services Data Centre
 - 2 floors dedicated
 - Support up to 1,200 racks at 6kVA/rack



HKEX Hosting Services

Benefit to Users

- Highly resilient and secure data centre
- Low latency access to HKEX Securities and Derivative markets
- Low latency direct HKEX market data feeds
- Carrier neutral with broad telecommunications carrier access
- Interactive ecosystem environment supporting electronic trading



HKEX Hosting Services

Innovative Services

- Among the first exchange pioneering collaborative Hosting Services Ecosystem



Low Latency
Market Access



Algorithmic
Trading



Real-Time
Market Data



Global
News Feed



Risk
Management



Analytics



HKEX Hosting Services

List of Ecosystem Members

Information Vendors

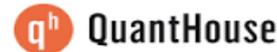


THOMSON REUTERS™

Application Service Vendors



Financial Technology Service Providers



HKEX Hosting Services

List of Ecosystem Members

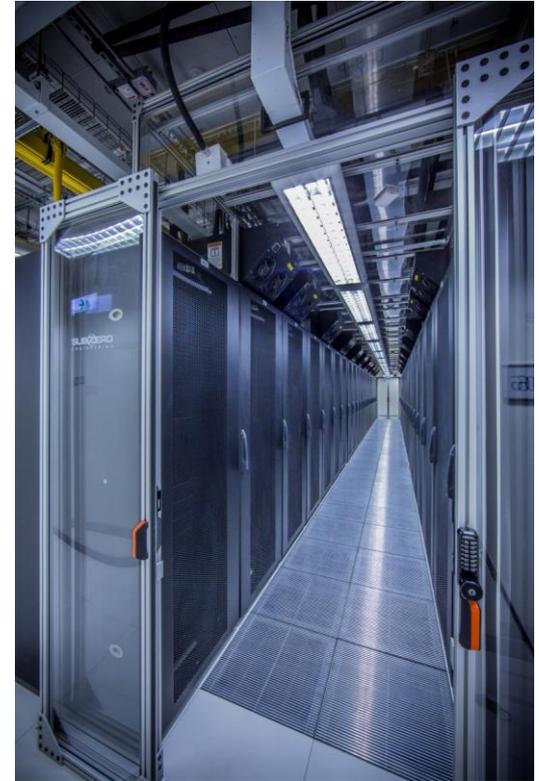
Network Service Providers



HKEX Hosting Services

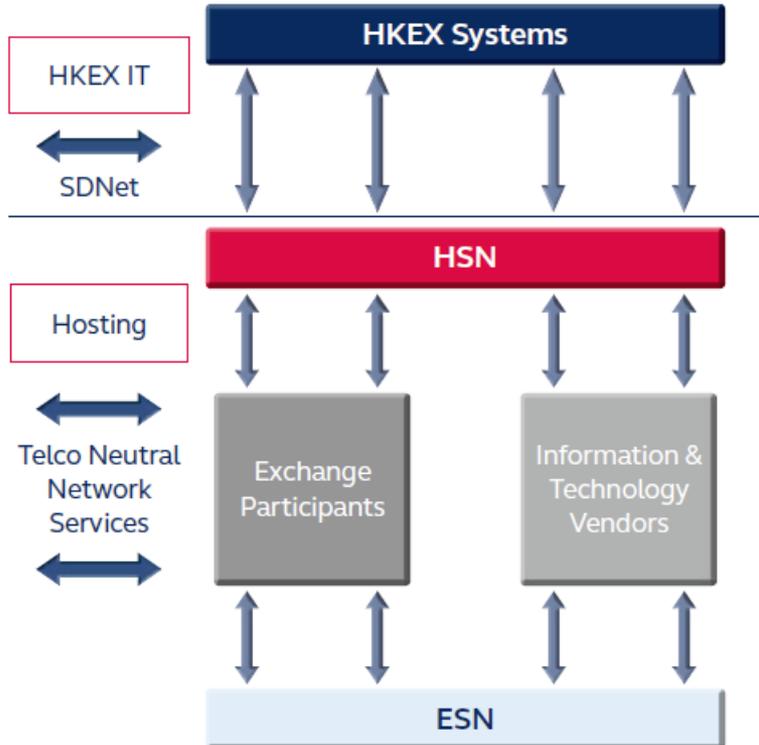
Data Centre Services

- Phase one with around 320 racks available for application
- Cold aisle containment with supplementary cooling to support 6kVA / rack
- 24x7 electrical and mechanical facility management and monitoring
- 24x7 on-site multi-level physical security management
- Remote hands service



HKEX Hosting Services

Connectivity Services



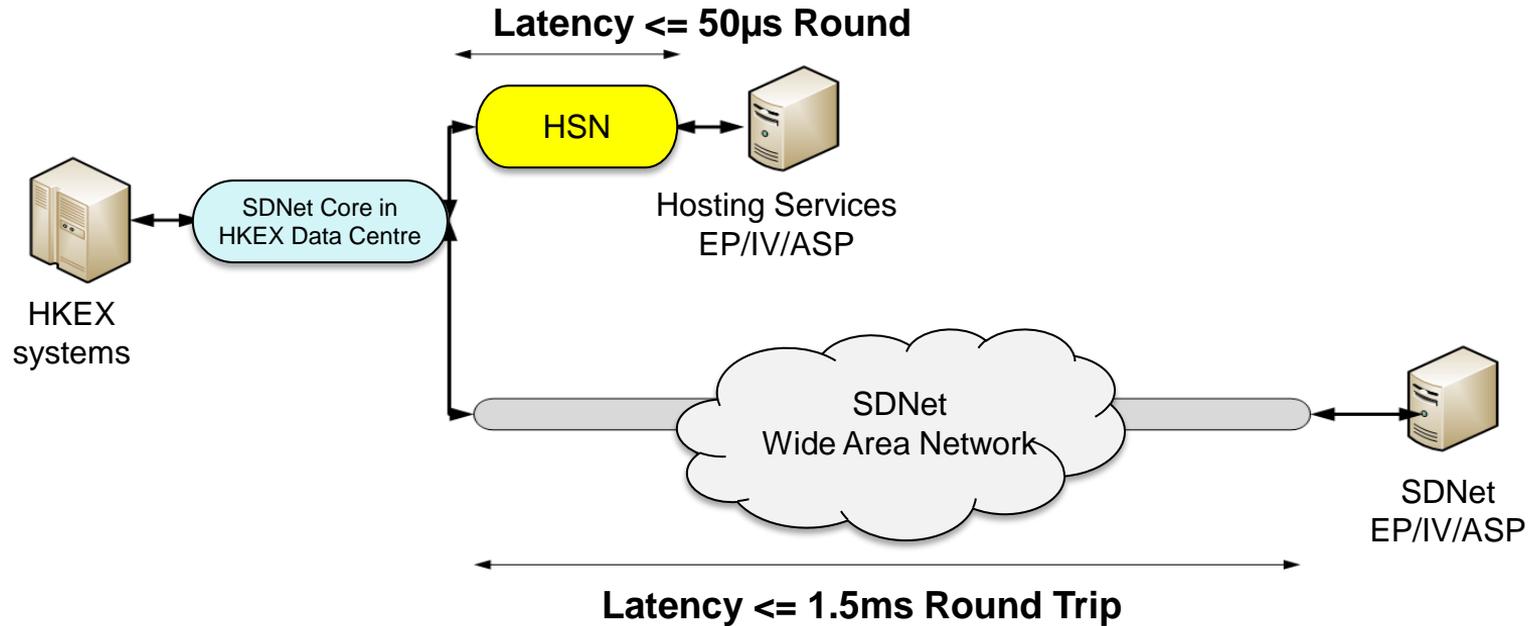
- **HKEX Service Network (HSN)** provides eligible users consolidated connection to HKEX market data, trading and clearing systems
- **Ecosystem Network (ESN)** enables users to access services on offer by other ecosystem members
- **Cross Connect (XCN)** puts ecosystem members in touch through direct copper or fiber connection



HKEX Hosting Services

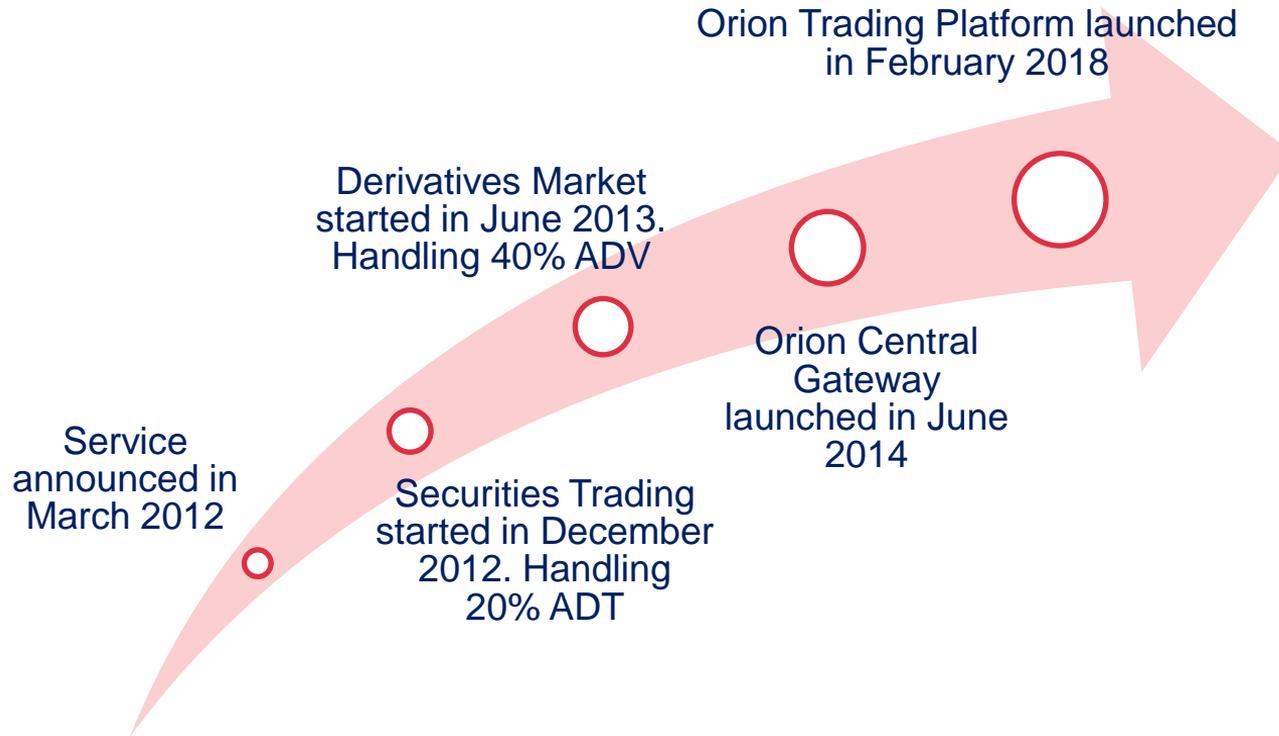
HKEX Service Network (HSN) Estimated Latency Benefit

HSN offers consolidated connection to HKEX Systems



EP= Exchange Participant
IV = Information Vendor
ASP = Application Service Provider

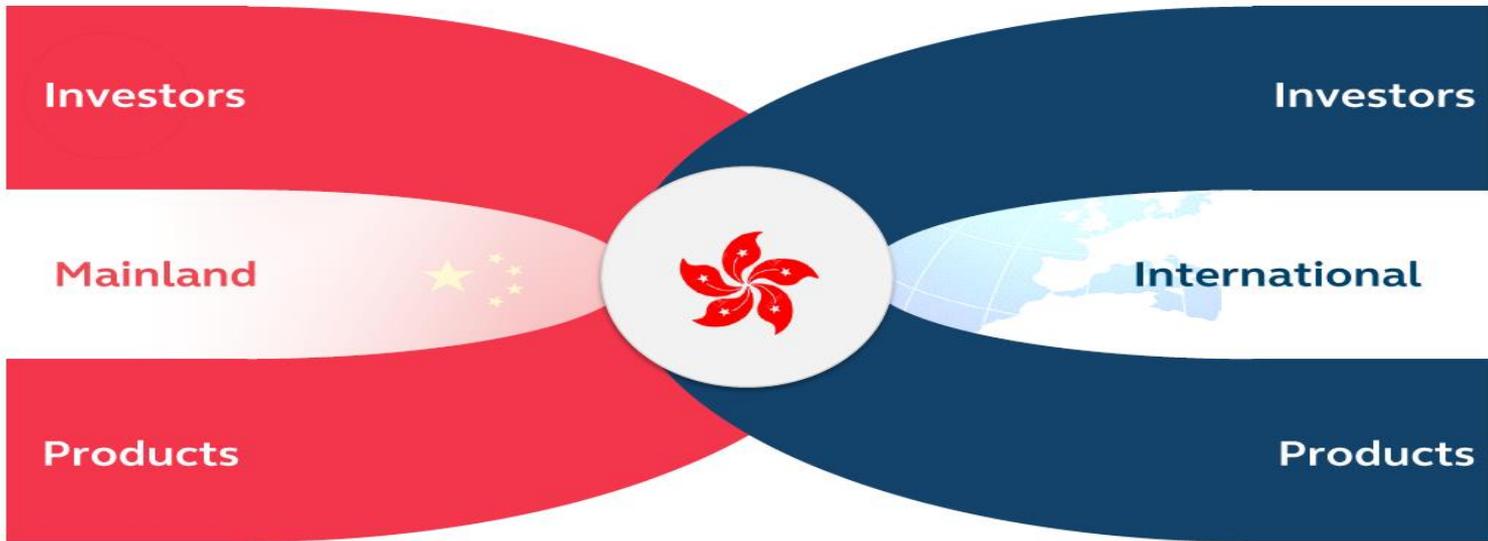
Hosting Services Progress Review

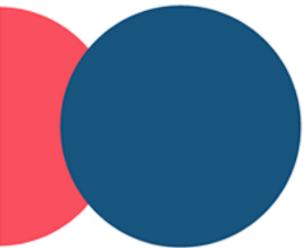


ADT = Cash Trading Average Daily Turnover
ADV = Derivatives Market Average Daily Volume

China Connectivity

20 Exchange Participants connecting to Shanghai and Shenzhen Stock Connect through HSN





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