

Orion Market Data

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Overview

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OMD Products

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OMD Subscription Powered by HSN

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Extension of OMD to Mainland

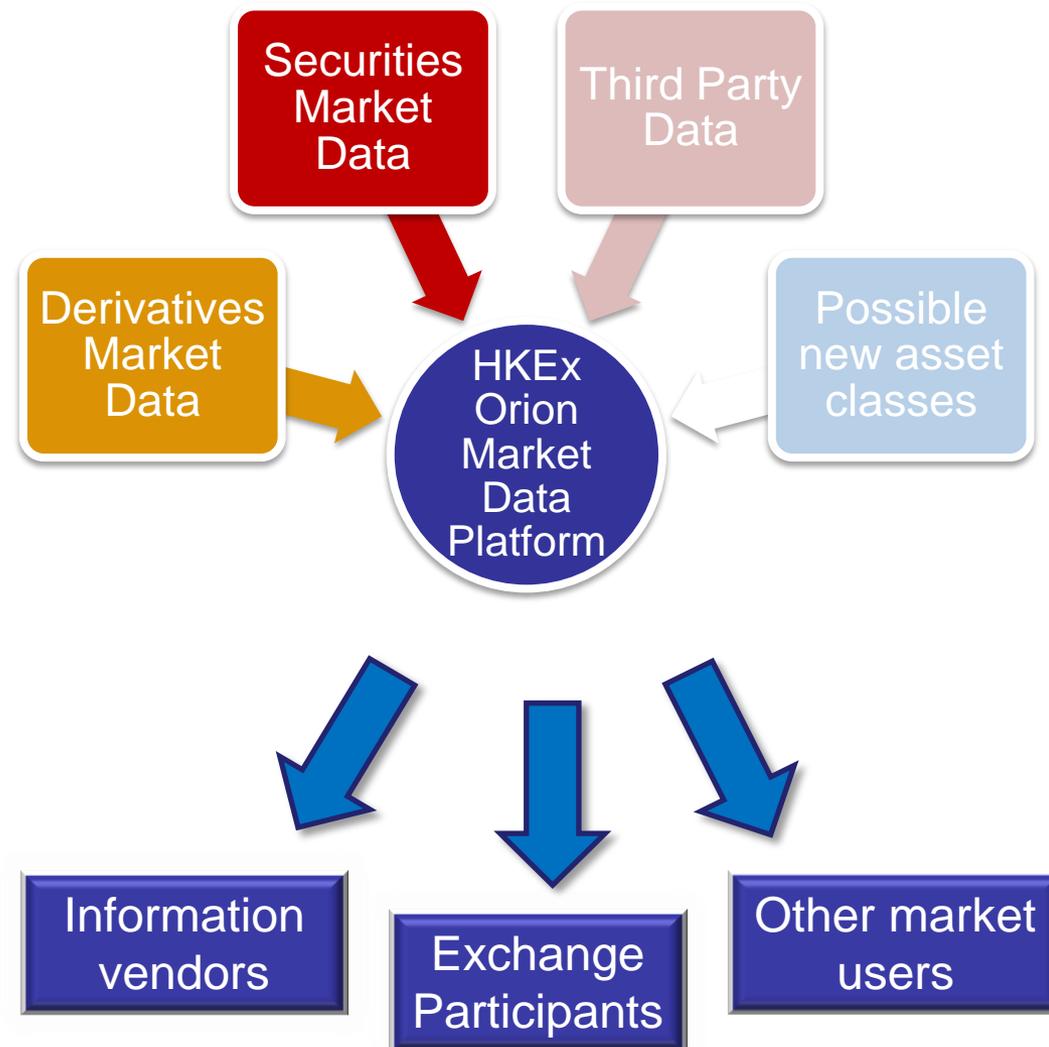
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OMD-D due to Launch in 2014

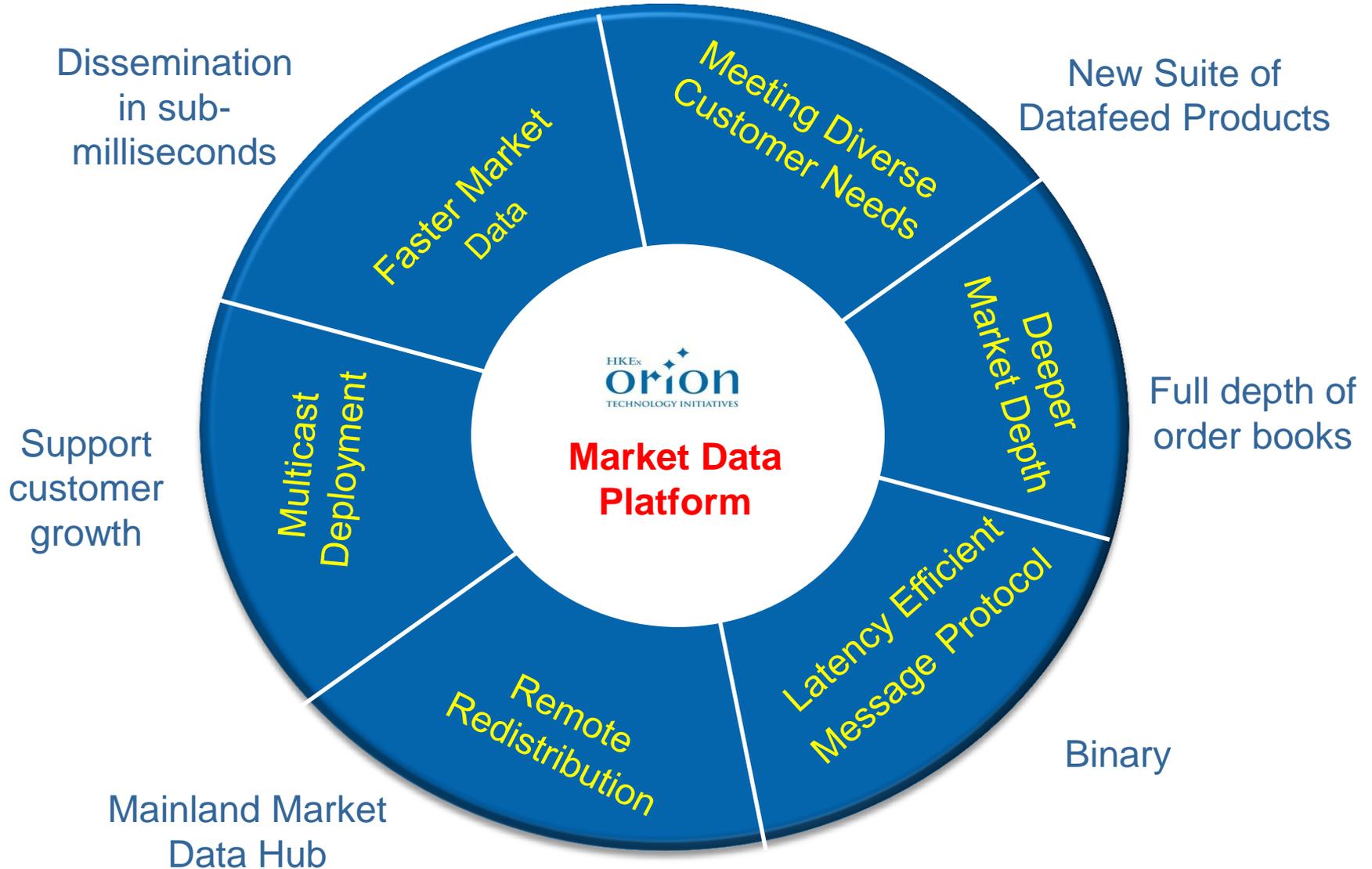
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OMD Related Programmes

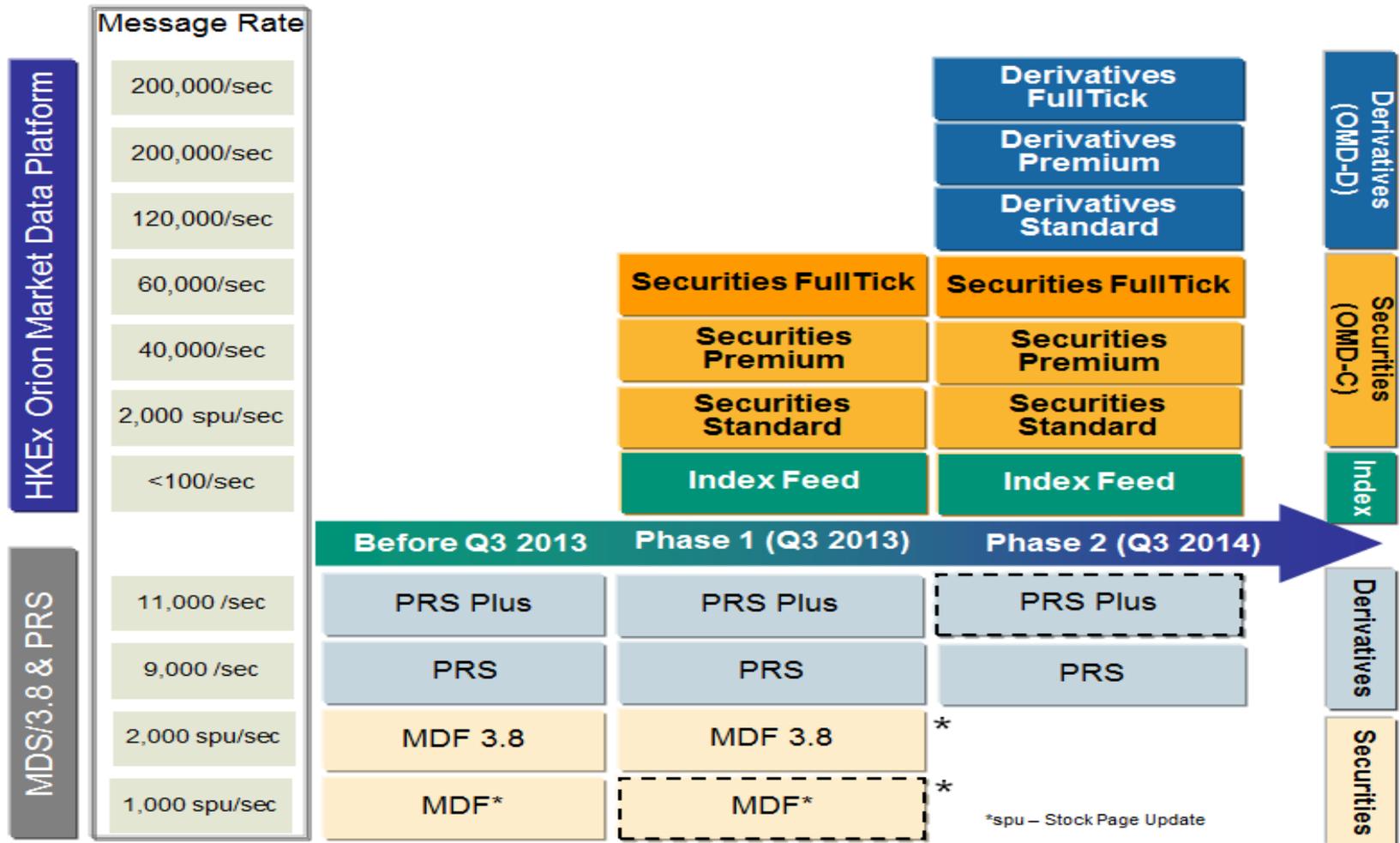
- Single, integrated platform
- Low-latency
- Multiple feeds
- Multiple asset classes
- Common message protocol



Key Features



OMD Datafeed Product Road Map



Remarks: MDF retired in Oct 2013.
MDF 3.8 to be retired in end March 2014.

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OMD-C Product Positioning



Securities Standard (“SS”)

- On par with OG in data contents and update rate

Securities Premium (“SP”)

- Low latency datafeed
- Comprehensive market information with statistics, news etc.
- Fit for automatic trading applications

Securities FullTick (“SF”)

- Low latency datafeed
- Provide full order information*
- Dissemination of individual orders and trades
- User can build order book and compile market statistics

* No order information is however available during auction session.

Derivatives Standard (“DS”)

- Conflated datafeed
- Replacement service for PRS with shorter update interval for DS, only half of the interval between PRS updates or lower.
- Comparable category of latency and content per HKATS NG

Derivatives Premium (“DP”)

- Low latency datafeed
- Replacement service for PRS-Plus, with shorter update interval for DP as the updates of which is driven by any order changes on streaming basis.
- Fit for automatic trading applications

Derivatives FullTick (“DF”)

- Low latency datafeed
- Provide full order information*
- Dissemination of individual orders and trades
- User can build order book.

* No order information is however available during auction session.

Securities Market & Index Datafeed Products

Datafeed Product		Message Rate	Content	Bandwidth Requirement
1.	Securities Standard ("SS")	Conflated. 2,000 stock page updates per second	<u>Market by price (10 levels)</u> Level 1 (Bid/ask quotations), all trade tickers (HH:MM:SS) Level 2 (10 market depths) Broker queues	10Mbps
2.	Securities Premium ("SP")	Streaming. 40,000 messages per second	<u>Market by price (10 levels)</u> Level 1 (Bid/ask quotations), all trades (HH:MM:SS) Level 2 (10 market depths)	30Mbps
3.	Securities FullTick ("SF")	Streaming. 60,000 messages per second	<u>Market by order (tick-by-tick full depth)</u> Individual order information (price, quantity & type of each order) all trades (HH:MM:SS) Auction session: no order information, but IEP & IEV	30Mbps
Complimentary Service Feeds				
1.	Conflated Broker Queue ("CBQ")** <i>- Complimentary to SP</i>	2,000 messages per second	Broker queues	6Mbps
2.	Odd Lot Order ("OLO") <i>- Complimentary to SS, SP and SF</i>	Streaming	Odd lot market by order information	50Kbps
Optional Product				
1.	OMD-Index (Market Neutral)	<100 messages per second	S&P/HKEx indices and selected indices from CESC, CSIC and HSIL	1Mbps

Derivatives Market Datafeed Products



Datafeed Product		Message Rate	Content	Bandwidth Requirement		
				Non-Stock Options Market	Stock Options Market	Total
1	Derivatives Standard ("DS") - plus Derivatives Trades (DT)	120,000 messages per second	<u>Market by price (10 levels)</u> Conflated update on: - Level 1 (bid/ask quotations) - Level 2 (market by price with 10 market depths) - Trade statistics <i>Plus complimentary DT:</i> Streaming update on: - Individual trades and trade amendments	4Mbps	19Mbps	23Mbps
2	Derivatives Premium ("DP")	200,000 messages per second	<u>Market by price (10 levels+1)</u> Streaming update on: - Level 1 (bid/ask quotations) - Level 2 (market by price with 10 market depths + 11th aggregating remaining book) - Individual trades and trade amendments	7Mbps	40Mbps	47Mbps
3	Derivatives FullTick ("DF")	200,000 messages per second	<u>Market by order (tick-by-tick full depth)</u> Streaming update on: - Market by order information - Individual trades and trade amendments - Auction Session: no order information, but COP & equilibrium volume	6Mbps	34Mbps	40Mbps
Optional Product						
1	OMD-Index (Market Neutral)	<100 messages per second	S&P/HKEx indices and selected indexes from CESC, CSIC and HSIL. <i>(Remarks: OMD Index Feed has been rolled out with OMD-C in Sep 2013)</i>			1Mbps

Remarks: Bandwidth requirement has accommodated the projected increase in data volume generated from the upgraded trading system.

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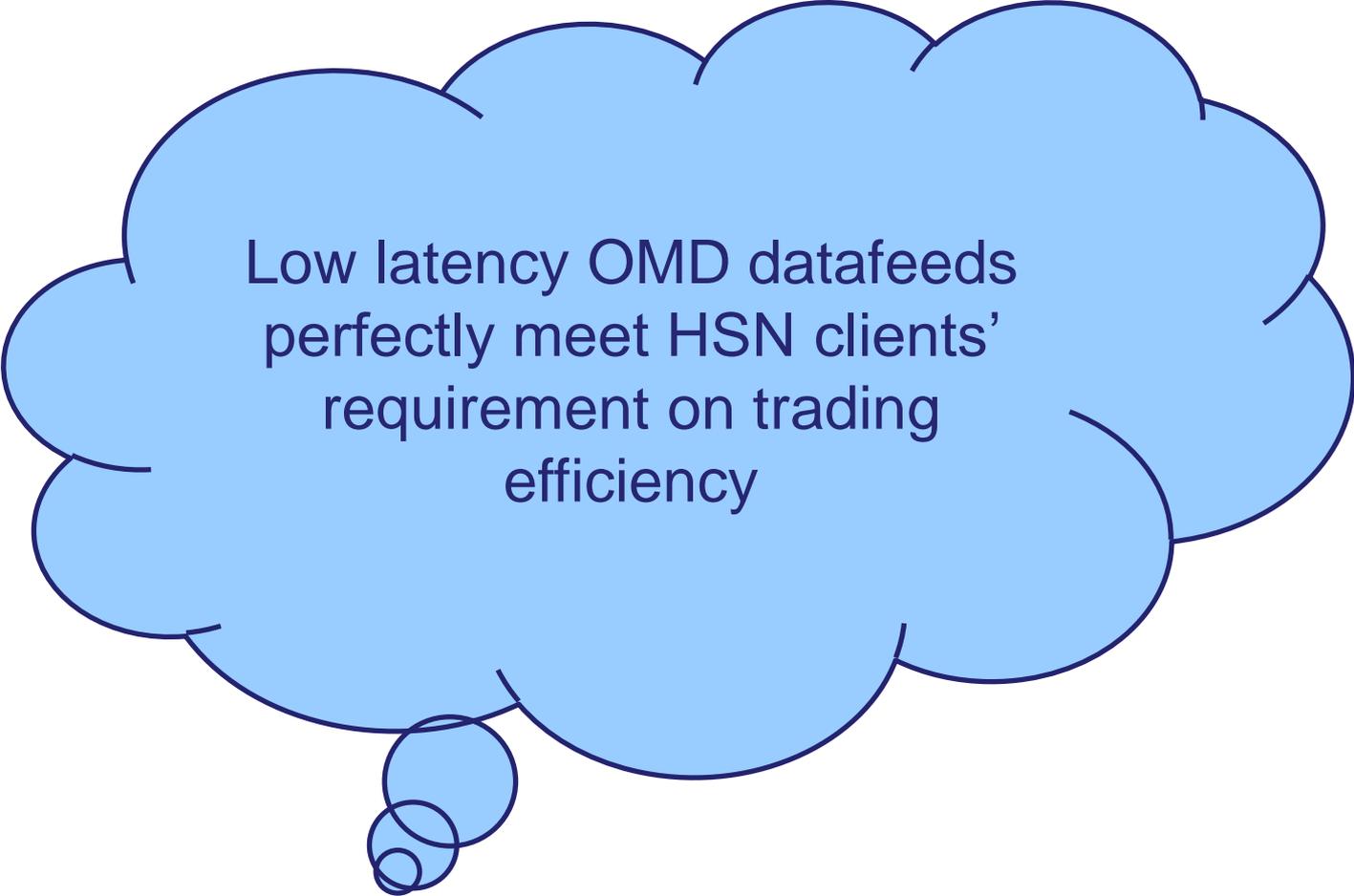
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OMD Related Programmes

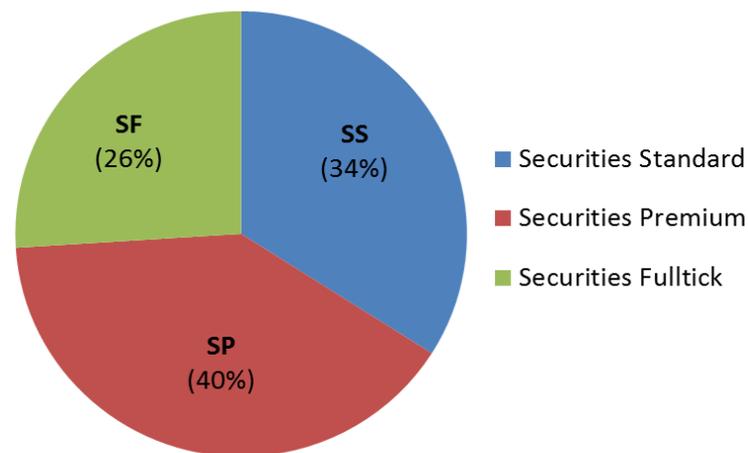


Low latency OMD datafeeds
perfectly meet HSN clients'
requirement on trading
efficiency

OMD-C Implementation Status Update

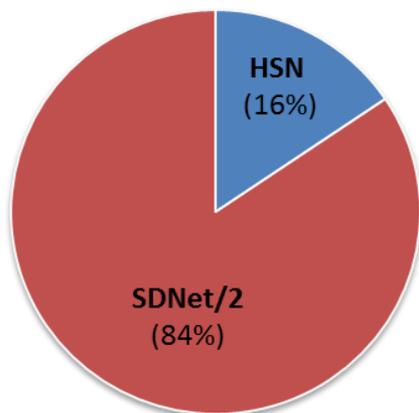
Overall Subscription

- Rolled out on 30 September 2013 in three batches
- 72 Direct Connection IVs and End Users
- Datafeed subscription spreads evenly across different datafeeds.

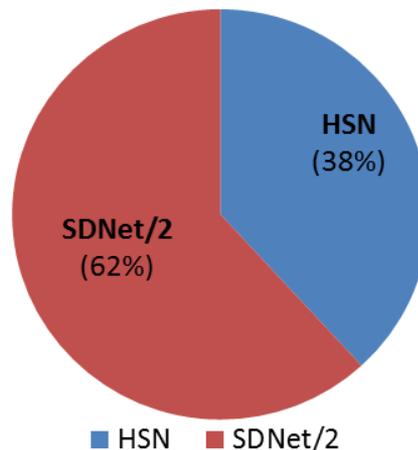


OMD-C Using HSN Vs SDNet/2

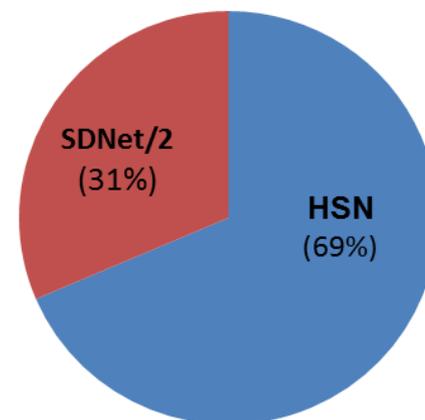
Securities Standard



Securities Premium

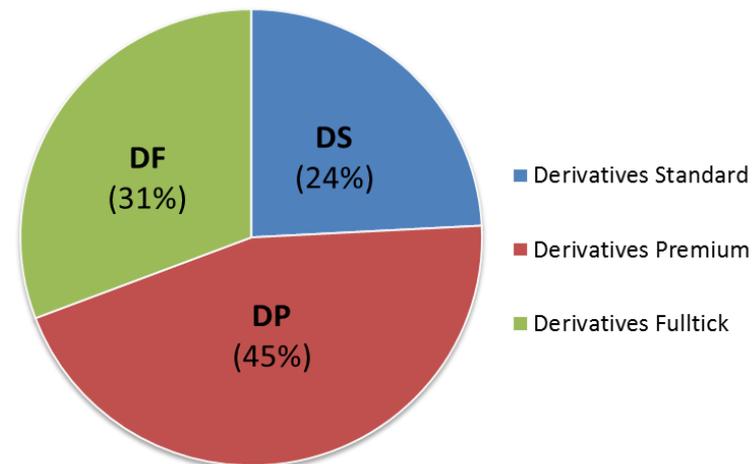


Securities FullTick



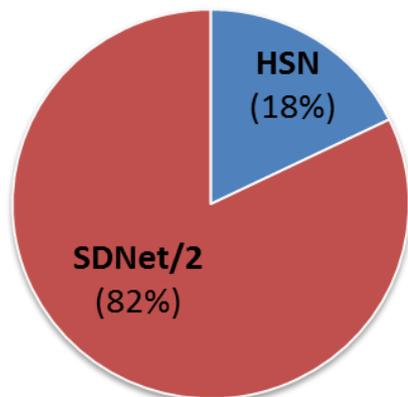
Overall Subscription

- 72 Direct Connection IVs and End Users have enrolled so far
- Datafeed subscription almost spreads evenly across different datafeeds.

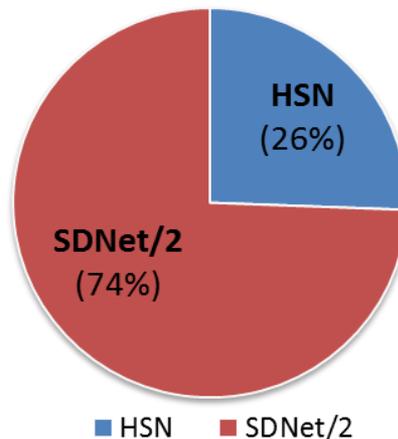


OMD-D Using HSN Vs SDNet/2

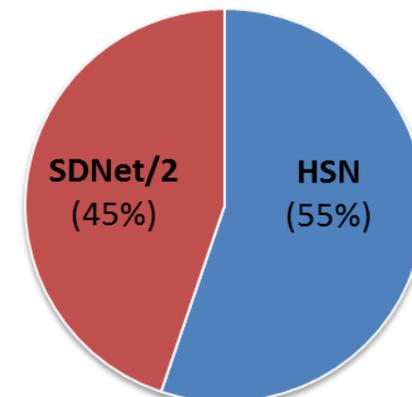
Derivatives Standard



Derivatives Premium



Derivatives Fulltick



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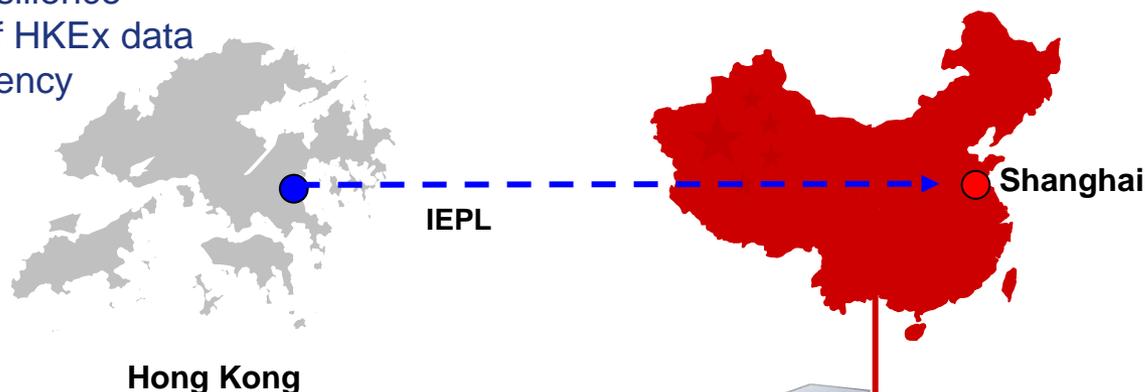
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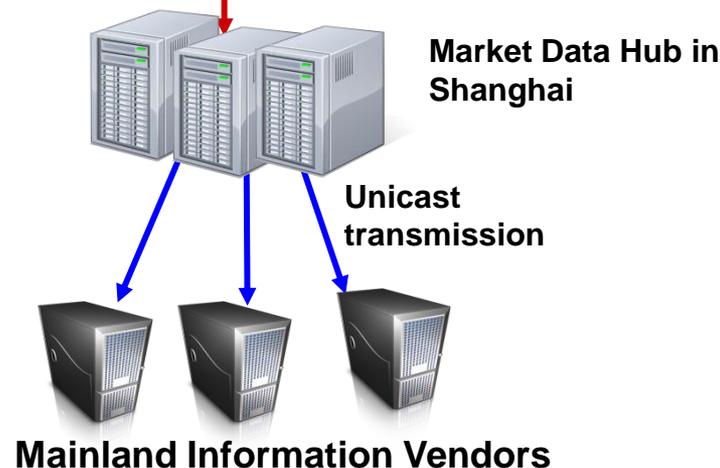
OMD Related Programmes

The first infrastructure footprint in Mainland China - Mainland Market Data Hub (MMDH)

- ◆ More cost-effective solution direct access solution to Mainland IVs
- ◆ Higher resilience
- ◆ Full set of HKEx data
- ◆ Lower latency



Address	Mainland Market Data Hub
Primary Data Centre	Huajing Road, Waigaoqiao Bonded Zone, Shanghai
Secondary Data Centre	Longchang Road, Yangpu Zone, Shanghai



Strengthening HKEx Mainland Connectivity and Extending Distribution Network



- Rolled out on 3 March 2014
- 5 Mainland clients connected to MMDH:

Company Name in English	Company Name in Chinese
Aastocks.com Ltd / Shanghai DZH Co., Ltd	阿思達克財經網/ 上海大智慧股份有限公司
East Money Information Co., Ltd	东方财富信息股份有限公司
Shanghai E Money Software Technology Co., Ltd	上海益盟软件技术股份有限公司
Sina Hong Kong Limited	新浪香港有限公司
Tencent Holdings Limited	腾讯控股有限公司

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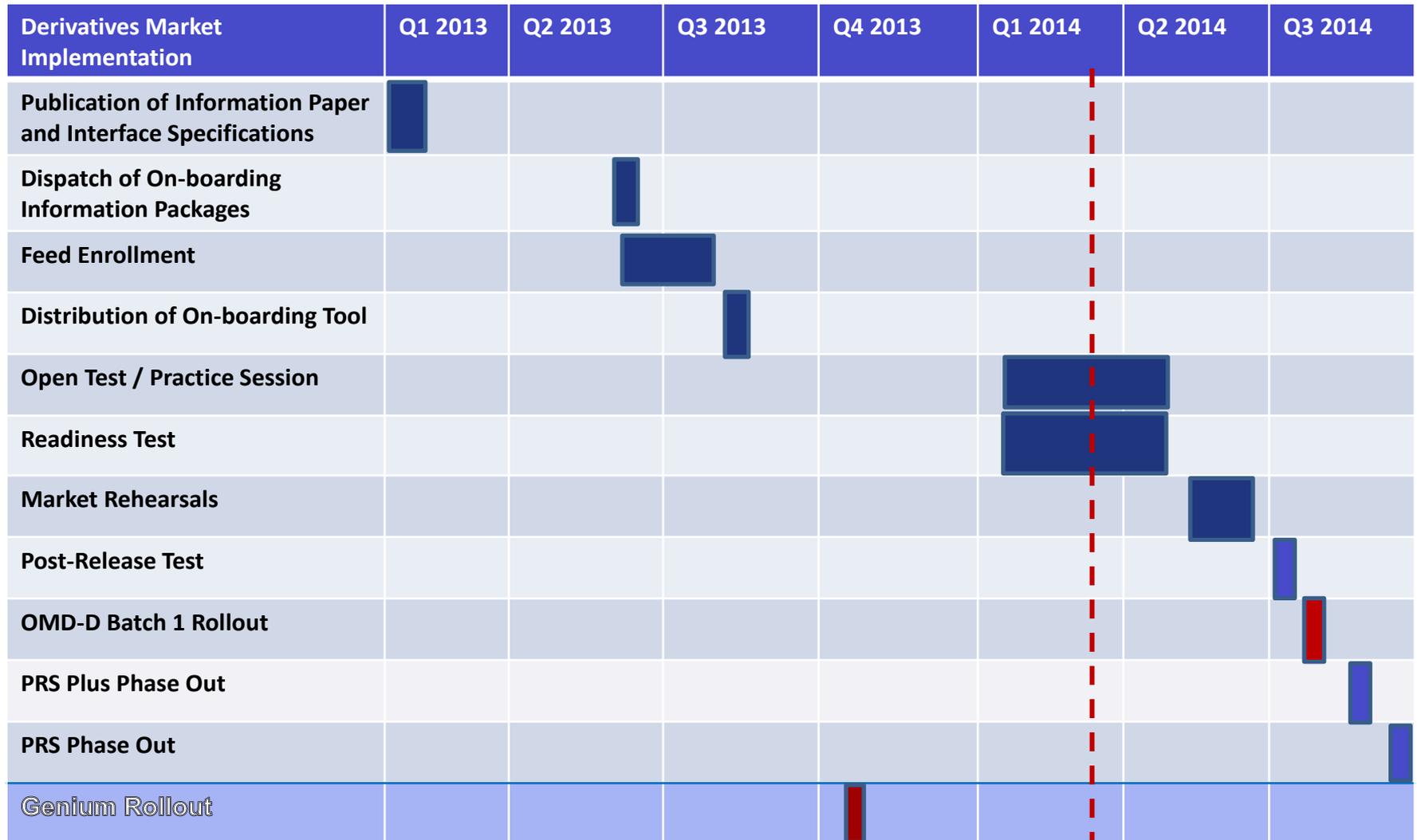
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OMD-D Implementation



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OMD Related Programmes

Objectives

With the rollout of Genium Central Gateway (CG), more EPs are anticipated to source derivatives data from OMD-D

While EPs can currently source order depth information (MQ7) via HKATS OAPI, there is a higher bandwidth requirement for OMD Derivatives FullTick (DF) feed

To this end, we aim to facilitate EPs' access to OMD-D order depth data by encouraging IVs to offer a lower bandwidth solution while redistributing the DF feed

Programme Details

OMD Derivatives FullTick Vendor Incentive Programme

Programme Duration	From OMD-D Rollout Date to 31 Dec 2015
Eligibility Criteria	<p>An eligible IV shall</p> <ul style="list-style-type: none"> (i) subscribe for Derivatives FullTick (DF) feed; and (ii) redistribute DF feed <u>only to EPs</u> and <u>only for internal use</u>* <p><i>*In other words, an eligible IV could NOT redistribute DF feed to</i> <i>(a) EPs for external distribution (as indirect vendor); or (b) non-EPs</i></p>
Benefits	Waiver on Redistribution Fees (\$37,950 per quarter) for eligible IVs

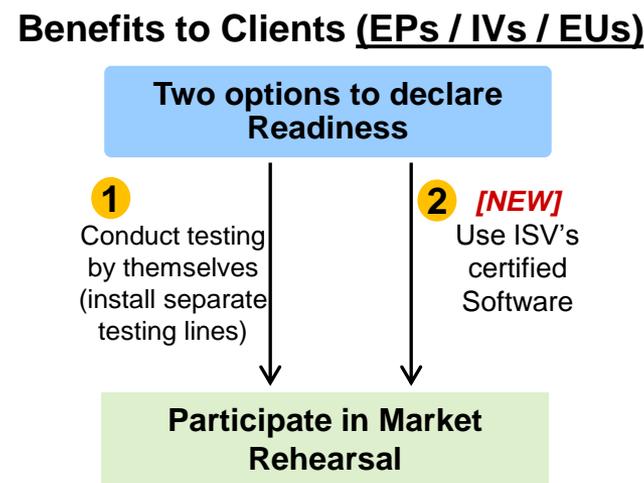
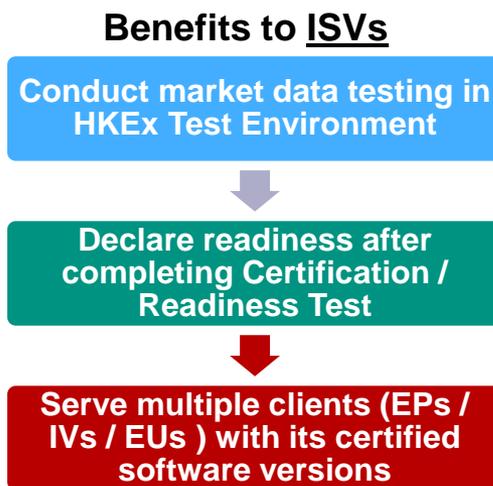
Independent Software Vendor (ISV) Test Service



Overview

- In Apr 2013, HKEx-IS launched a new policy to enroll Independent Software Vendors (ISVs)
- By subscribing for the Test Service, ISVs can conduct testing for themselves and for EPs / IVs / EUs
- This is expected to reduce direct costs to EPs / IVs / EUs and facilitate the market readiness of OMD roll-out and other system initiatives

Benefits



ISV Test Charges

		Securities Market Data	Derivatives Market Data
(i) One-off Registration Fees		\$10,000	\$10,000
(ii) Test Charges	Daily	\$1,500 for one or more datafeeds ⁽²⁾	\$500 for one or more datafeeds ⁽³⁾
	Monthly	\$21,000 for one or more datafeeds ⁽²⁾	\$7,000 for one or more datafeeds ⁽³⁾

If the ISV is an IV / EU, the One-off Registration Fees will be waived, and the Test Charges will be subject to the prevailing HKEx-IS test charges policy ⁽¹⁾

Note: (1) ISV who is a licensed IV/EU will be offered free testing time for OMD testing prior to OMD roll-out
 (2) Include Securities Standard (SS), Securities Premium (SP), Securities FullTick (SF), OMD-C complimentary feeds and MDF 3.8
 (3) Include Derivatives Standard (DS), Derivatives Premium (DP), Derivatives FullTick (DF), OMD-D complimentary feeds, PRS Plus and PRS 23

Q&A

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