April 22, 2016

# HOSTING SERVICES ECOSYSTEM FORUM - 2016



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## Leading Hong Kong's Next Transformation





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### **The Need for Change**

Hong Kong is part of a global and competitive financial system, and technology drives financial markets. For Hong Kong to retain and strengthen its position as a leading financial centre, HKEX is committed to investing in the future through technology to remain competitive.



#### Why does Hong Kong need the HKEX Orion Technology Initiatives?

#### Facing the challenges of tomorrow

The Hong Kong market enjoyed spectacular growth in the decade from 2000 – 2010 based largely on the capital raising needs of Mainland China. This happened by virtue of time and location, and with minimal investment by HKEX in IT platforms.

The world is now a different place and Hong Kong needs to adapt to maintain its unique value position in greater China and the global financial market:

- Financial markets are global, and Hong Kong must be globally competitive.
- Mainland China is changing from being a net importer of capital to a net exporter and the RMB is making rapid advances towards becoming a reserve currency. Hong Kong must strive to remain at the forefront of this evolution.
- Hong Kong can no longer rely on equities only for its growth.
   Diversification into other global asset classes such as commodities can build a more sustainable future.

HKEX's Orion Technology Initiatives are a major capital investment aimed at positioning Hong Kong to capture these unique opportunities.

#### Building opportunities for participants

The HKEX Orion Technology Initiatives will support the next chapter of Hong Kong's development which will benefit all market participants.

- The initiatives progressively transform HKEX's trading infrastructure to bring efficiencies to participants.
- The initiatives recognize the diverse needs of the market and move away from the "one size fits all" model. Participants will be able to make choices in the services they subscribe to according to the needs of the business.
- The initiatives support the development of existing markets, and open up new markets and new business opportunities.



### **Essential Technology Investment**



#### Infrastructure



## **Platforms**



## **Securities Market Platform Migration**



Minimizing participant impact



### The Programme at a Glance

**A Phased Transformation** – HKEX's Orion Technology Initiatives can be broken down into three overlapping phases, delivering incremental benefits through the transformation.

			Phase 3: Connectivity More projects are in ea	arly planning stages focused on global connectivity and m	arket access		
		Phase 2: Platfo	Phase 2: Platforms				
		Applications driving the transformation					
		Securities Market Projects	Orion Market Data	Suite of market data feeds	Completed		
			Orion Central Gateway	Cost efficient replacement of OG	Completed		
			Orion Trading Platform	Planned replacement of AMS	In Development		
			MWS/Terminals	Planned replacement of EP trading devices	Completed		
		Derivatives	Genium INET Trading	Increased capacity and lower latency	Completed		
		Market	Genium INET Clearing	Higher capacity and faster operations	Completed		
		Projects	Orion Market Data	Suite of market data feeds	Completed		
	Phase 1: Infrastructure						
	Core infrastructure that lays the foundation for the initiatives, supplying physical capacity and essential access to HKEx platforms						
	Infrastructure Projects	Data Centre	State-of-the-art purpose built facility providing the capacity for all other initiatives		Completed		
		Hosting Services	Tier-4 standard hosted ecosystem and colocation facility		Completed		
		SDNet/2	High bandwidth, low latency	access network with multi-vendor provision	Completed		

## The Programme at a Glance



Orion Trading Platform project started in May 2015, targeted to be completed by Q4, 2017

## **Achievements from the Orion Technology Initiatives**

The Orion Technology Initiatives have brought benefits to the entire market community, strengthening Hong Kong's competiveness as a leading financial centre.

ure	Network	<ul> <li>✓ Higher bandwidth to support future market growth by SDNet/2</li> <li>✓ Introduction of multiple vendors for competitive pricing</li> </ul>
Infrastructure	Data Centre	<ul> <li>✓ State-of-the-art purpose built facility, owned and operated by HKEX</li> <li>✓ Consolidation of legacy HKEX data centres</li> </ul>
lufr	Hosting Services	<ul> <li>✓ Low latency access to HKEX platforms</li> <li>✓ Tier-4 standard hosted ecosystem</li> </ul>
Cash Platform	Market Access	<ul> <li>Cost reduction through elimination of HKEX broker-side gateway footprint</li> <li>Additional functionality, including FIX support and drop copy</li> </ul>
	Market Data	<ul> <li>✓ Ultra-low latency pricing information</li> <li>✓ Suite of market data products to meet diverse customer needs</li> </ul>
Derivative Platform	Trading System	<ul> <li>✓ Increased capacity to support expansion of market maker programme and stock options trading</li> <li>✓ Industry leading low latency trading platform</li> </ul>
	Clearing System	<ul> <li>Significant increase in performance and throughput capacity to support market growth</li> <li>Faster response time to daily operational processing</li> </ul>
	Market Data	<ul> <li>✓ Ultra-low latency pricing information</li> <li>✓ Suite of market data products to meet diverse customer needs</li> </ul>

HKEX thanks all participants for their work & effort going through this journey with us.