

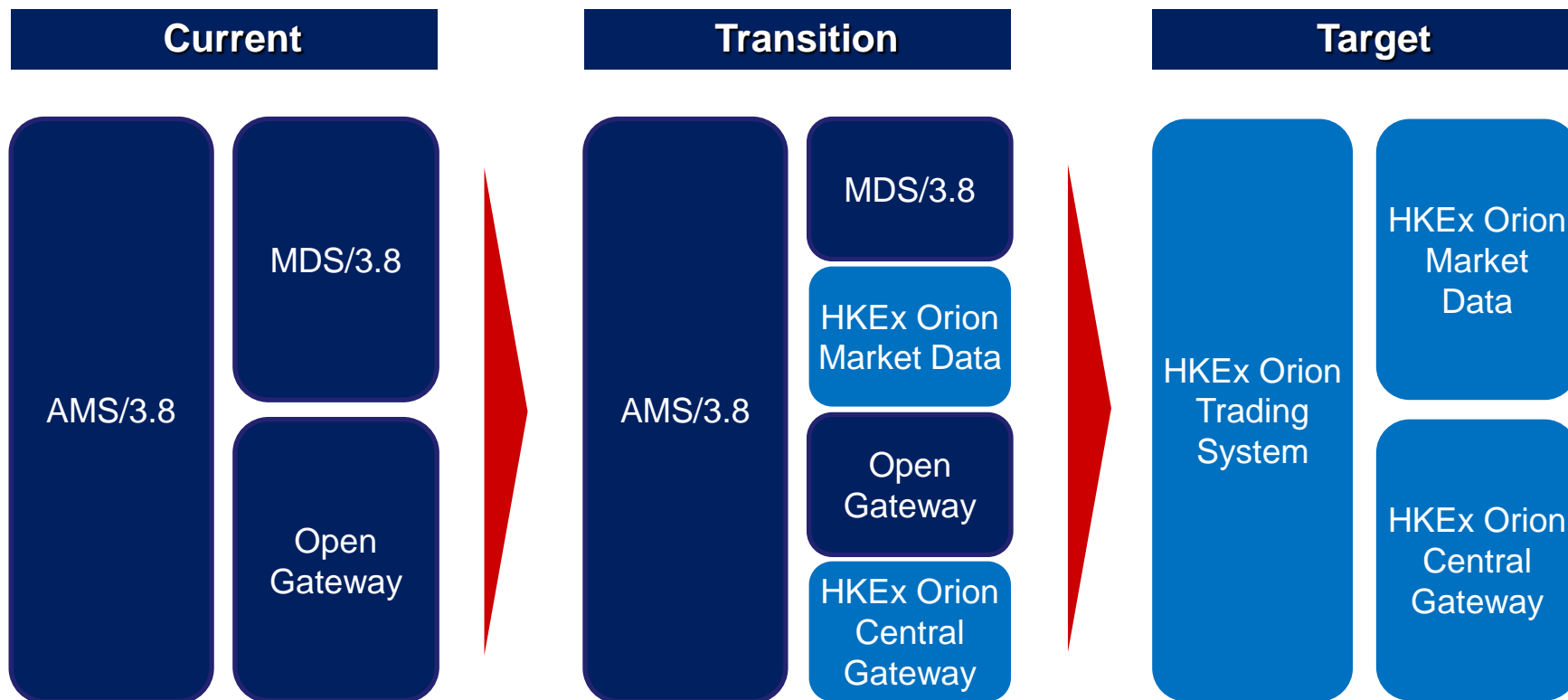
領航星中央交易網關

Orion Central Gateway

March 2013



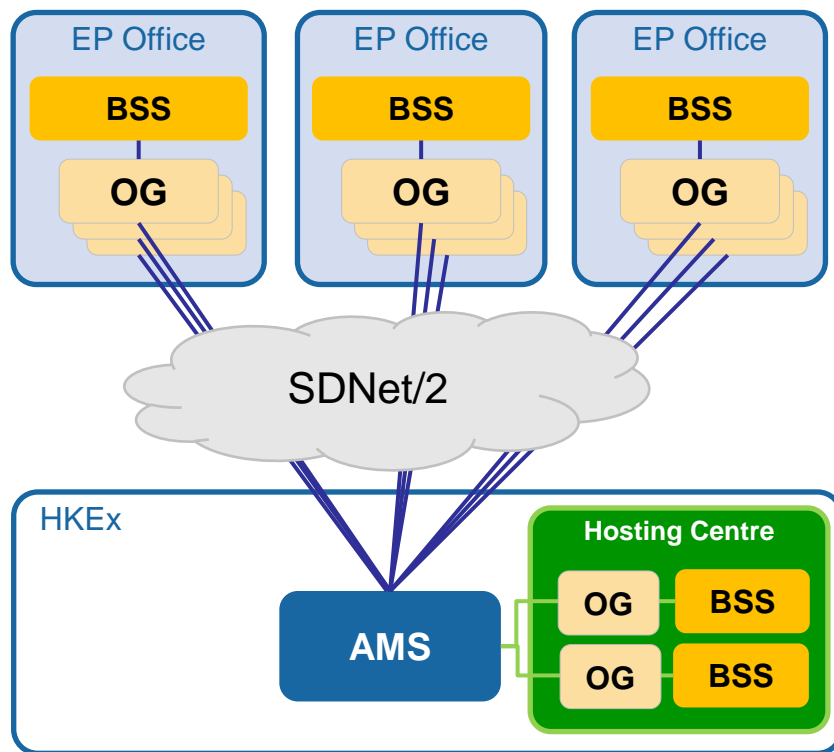
Securities Market Platform Migration



Minimizing participant impact

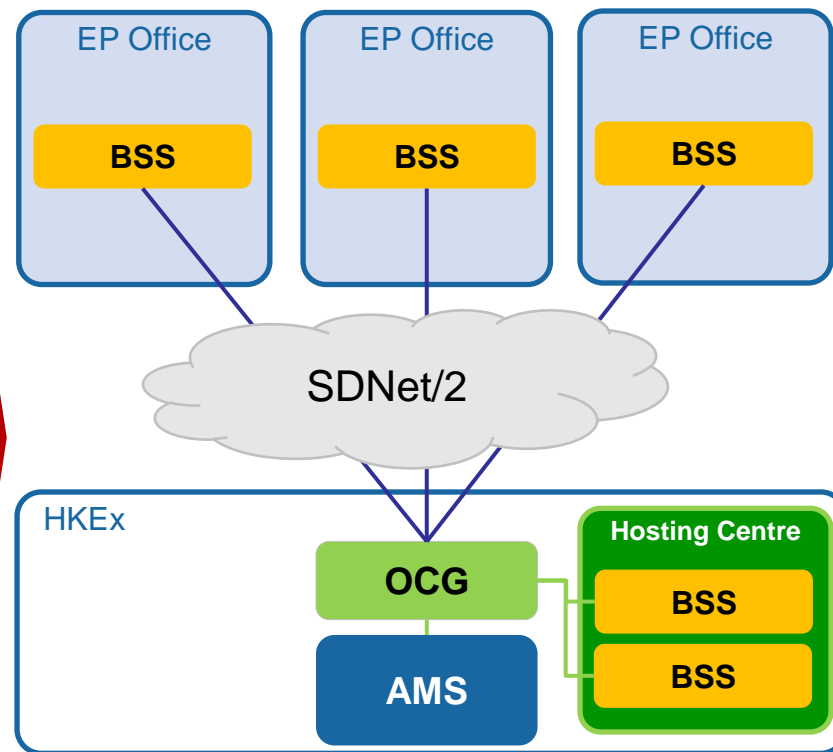
What is the Orion Central Gateway?

Today's Open Gateway (OG) Architecture



- Access via OG Connection
- Gateway device maintained by EP
- One pair of SDNet/2 circuits **per OG**

Future Orion Central Gateway (OCG) Architecture



- Access via "OCG Session"
- Gateway device in HKEx, maintained by HKEx
- One pair of SDNet/2 circuits **per location**

Provide a centralized, high resilient, low latency, flexible and scalable platform to EPs.

Comparison of Orion Central Gateway with OG



Key Feature	OG	OCG
Hardware	By EP	By HKEX
Resilience	<ul style="list-style-type: none"> High Availability (HA) requires HA OG Disaster Recovery (DR) requires Backup OG 	<ul style="list-style-type: none"> HA and DR resilience built in
Interface	<ul style="list-style-type: none"> AMS/3 open message protocol 	<ul style="list-style-type: none"> FIX or Binary protocol
Capacity	<ul style="list-style-type: none"> Max 60 Throttles (Trading) Max 30 Throttles (Market Making) 	<ul style="list-style-type: none"> Max 250 Throttles per OCG Session
SDNet Circuit	<ul style="list-style-type: none"> Separate circuit for each OG 	<ul style="list-style-type: none"> Circuit consolidation for each location
Market Data	<ul style="list-style-type: none"> Via OG or MDF 	<ul style="list-style-type: none"> Via Orion Market Data Platform (Q2 2013)
Trade Data	<ul style="list-style-type: none"> Central Trade Feed (trades only) 	<ul style="list-style-type: none"> Drop Copy Service (trades only, or orders + trades)

What are the benefits?

- Eliminate OG hardware
- Support SDNet circuit consolidation
- Eliminate monthly Backup Throttle charges
- One Standard Throttle permits 2 Messages per second

Cost Savings

- Support FIX and Binary protocol compatible with future Orion Trading System
- Introduce Drop Copy service
- Introduce Cancel on Disconnect

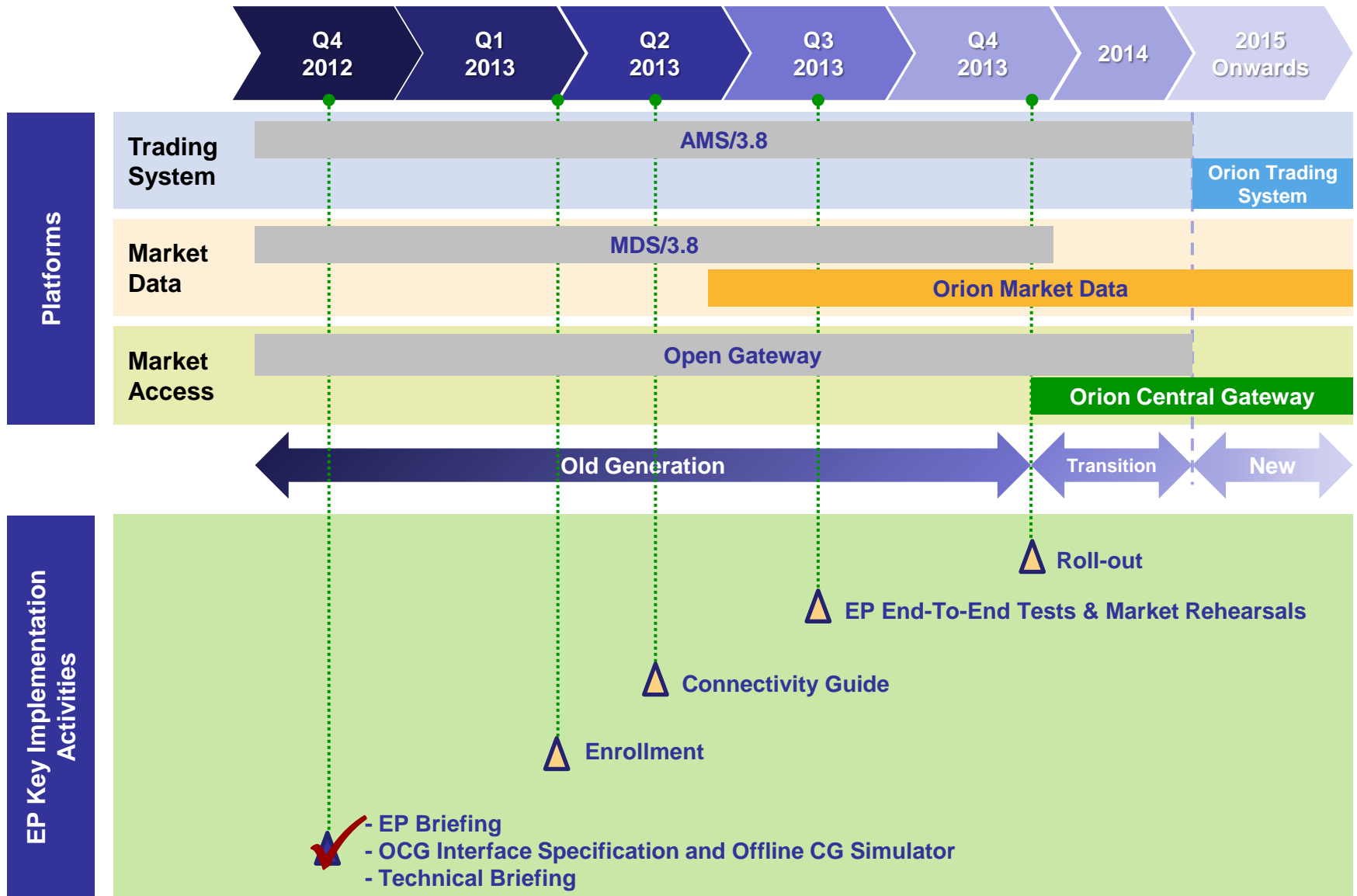
New Functionalities

- Decouple Trading and Market Data to reduce duplication and bandwidth
- Provide HA and DR to all OCG users
- Faster onboarding time for new OCG Session
- Low latency
- High Capacity Session supports throttle consolidation for better utilization

Reliability & Efficiency

OCG will enable EPs to save cost and use new functionality in a reliable and efficient platform

Status & Timeline



On-Boarding Schedule

Tentative Timeline	Q4 2012	Q1 2013	Q2 2013	Q3 2013	Q4 2013
Distribution of offline simulators of OCG and OMD-C	■				
EP to return OCG enrollment form			■		
EP to return OCG simulator test result			■		
Open test (OMD-C) / End to End Test (OCG)				■	
• OMD-C				■	
• OCG				■	
EP to return declaration on readiness tests				■	
Installation of production OCG/BSS and OMD-C circuits, and signing up Market Data Agreement				■	
Market Rehearsals					■
Rollout					■

Certification:

- ✓ Simulator Test Package
- ✓ End-to-End Test Package
- ✓ Market Rehearsal Scenarios

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