



Orion Central Gateway – Securities Market (OCG–C) Overview

HKEX Trading

March 2022

HKEX
香港交易所

Agenda

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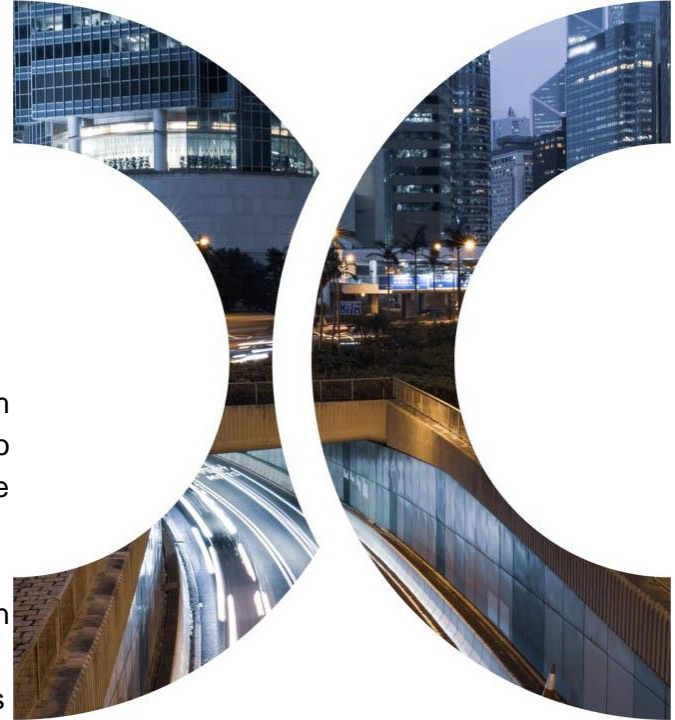
04 | Implementation

05 | Enquires



01 – Background

- HKEX implemented Orion Central Gateway (OCG) to replace the legacy AMS/3 Open Gateway for Hong Kong securities market back in 2014. Orion Trading Platform – Securities Market (OTP-C) then replaced AMS/3.8 as the new securities trading system in 2018.
- OCG platform will reach 7-year of age by 2021. To meet the evolving business needs and future market growth, a technological revamp of the platform is necessary.
- Orion Central Gateway – Securities Market (OCG-C, previously known as Cash Market Gateway(CMG)) will replace OCG and be fully integrated with OTP-C to standardise technology stack for Hong Kong securities market. Benefits will include reduced complexity and better performance.
- OCG-C implementation will use a phased approach to allow a low impact transition for market participants:
 - Phase 1 (completed in Sep 2021): technical migration with no functional changes
 - Phase 2 (2H 2022): implementation of new features together with HKIDR



02 – Benefits



Latency Improvement

- Robust new market access platform offering lower latency than existing OCG



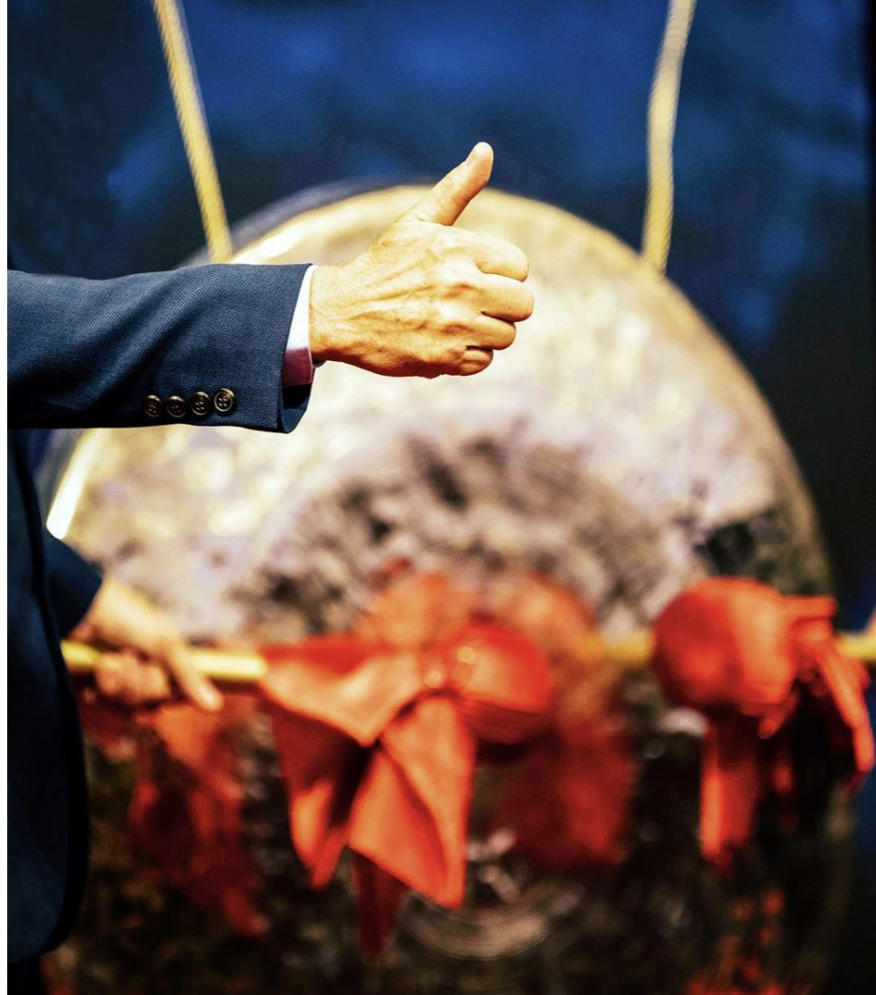
Higher Performance

- Hardware will be refreshed with a new model to offer higher performance



Integrated Platform

- Fully integrated with OTP-C to provide greater flexibility to implement new functionalities in the future.



03 – Impact on EPs (Phase 1)

No Change to Functions, Throttling Mechanism, Capacity and Fees Structure

The implementation of OCG-C will not introduce any changes in terms of the functions provided, the throttling mechanism, the capacity per order flow session, and the fees structure. All the current OCG functions will be carried over to OCG-C.

Participation in Testing

- End-to-End (E2E) Test: All EPs should connect their systems to the OCG-C to verify the compatibility of their systems with OCG-C in a test environment analogous to the target production environment.
- Market Rehearsals (MRs): As the final preparation and verification of readiness before OCG-C migration, MRs will be conducted over a number of weekends after the completion of E2E test. All EPs are required to participate in the MRs to ensure their system readiness.

Smooth Completion of Phase 1 in September 2021



03 – Impact on EPs (Phase 2)

Introduction of New Features together with HKIDR

EPs and Broker Supplied Systems (BSS) vendors are required to upgrade their BSS for HKIDR requirements and new features according to the OCG-C interface specifications.

New Features

- **Increase the transaction time precision to microsecond** in new format: YYYYMMDD-HH:MM:SS.ssssss. The benefits of precise timestamping could include enhanced performance visibility and accurate auditability of trading activities.
- **Provide an aggressive/passive indicator for auto-matched trades.** This indicator identifies whether a trade is a result of an EP's aggressive or passive order. Such indicator will facilitate EPs to conduct their own data analysis.

Participation in Testing

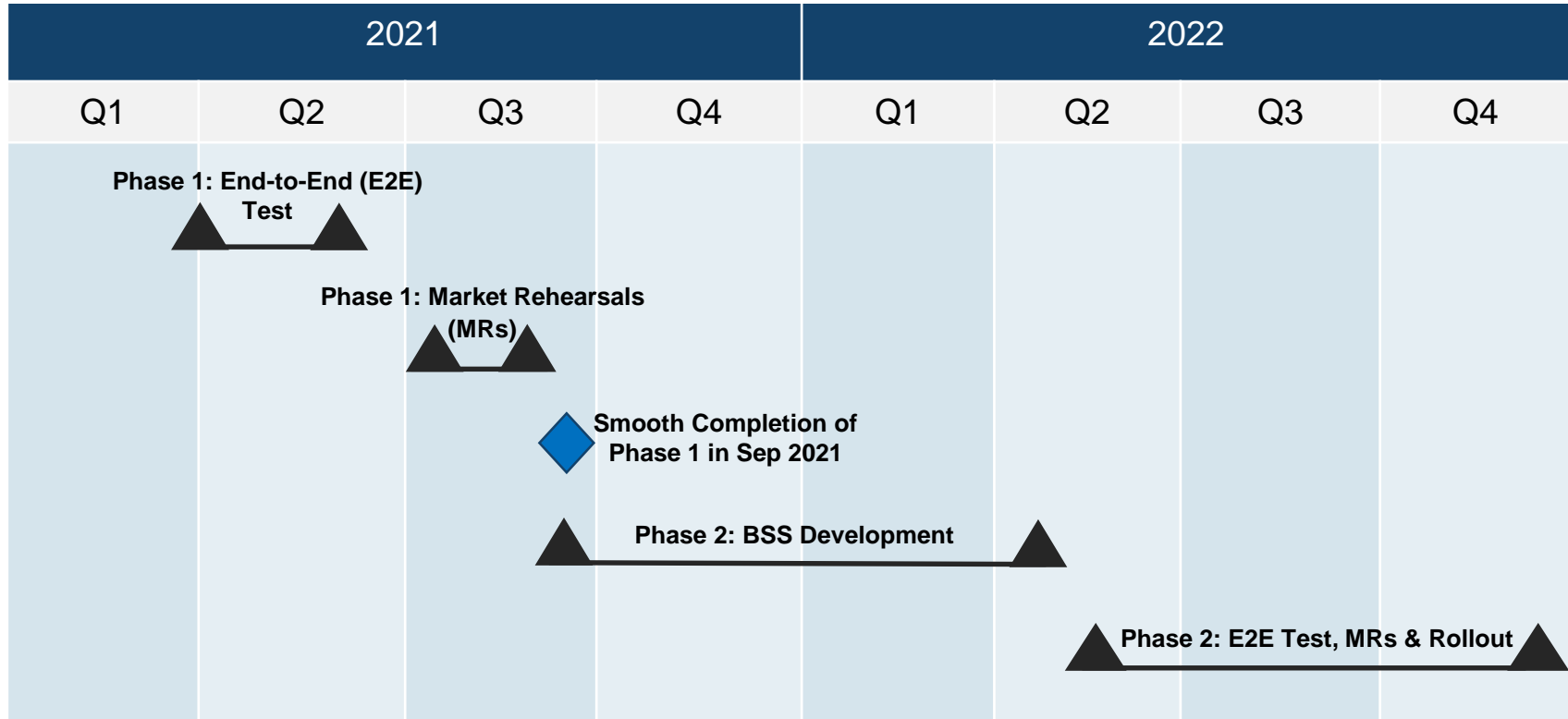
- **End-to-End (E2E) Test:** All EPs should connect their systems to the OCG-C to verify the compatibility of their system with HKIDR and new features in an environment analogous to the target production environment
- **Market Rehearsals (MRs):** MRs will be conducted after the completion of E2E test. All EPs are required to participate in the MRs to ensure their system readiness for OCG-C phase 2 rollout.

EPs should plan for the necessary development and testing effort in accordance with the implementation schedule



04 – Implementation

The implementation schedule of OCG-C is summarised as follows:



05 – Enquires

- For queries and further clarification on OCG-C, please email OTPC@hkex.com.hk or write to:

Hong Kong Exchanges and Clearing Limited

6th Floor, Two Exchange Square

8 Connaught Place

Central

Hong Kong

Re: Implementation of Orion Central Gateway – Securities Market (OCG-C)

- EPs and BSS vendors are welcomed to contact the HKEX BSS Support Team (BSSSupport@hkex.com.hk) for clarification on OCG-C Interface Specifications.
- For enquiries about OMD-C, please contact HKEX-IS (IVSupport@hkex.com.hk).
- For future project updates, please refer to [OCG-C project corner](#) at HKEX website



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