Attachment 4

HSN Readiness Test on 31 August 2019

Information Package
for

HKCC / SEOCH Participants

Version 1.0
Issue Date: 16 August 2019

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1. Introduction

HKEX Hosting Services ("HKEX-Hosting") plans to replace the firewalls and network switches ("Hardware Replacement") for HKEX Service Network ("HSN").

To facilitate Clearing Participants ("CPs") who are subscribing HSN to verify their network connectivity with the Hardware Replacement for HSN, HKEX will conduct a HSN Readiness Test ("RT") on Saturday, 31 August 2019. In order to ensure a smooth Hardware Replacement, CPs are **<u>mandatory</u>** to participate in the RT to test the infrastructure readiness for Phases 1 to 3 of HSN Production Cutover. CPs are required to declare the readiness for the Hardware Replacement.

This information package is designed to assist CPs in preparing and planning for the RT. CPs should read this information package carefully and make necessary preparation before participating in the RT. A copy of this document should also be passed to their IT support or system vendors to ensure the availability of proper technical support before, during and after the RT.

After the Readiness Test, HSN will be fallback to the to-be-replaced firewalls and network switches ("Original HSN"). CPs are required to verify the connections to ensure proper connectivity.

2. Objectives and Scope

2.1 Test Objectives

The objective of the RT is to allow CPs to verify their network connectivity to DCASS with the Hardware Replacement for HSN.

2.2 Scope

The RT will consist of 3 parts:

- Part A: Login Test
- Part B: Simulation of Clearing Operations
- Part C: Download Report via Report Retrieval Solution

Part A: Login Test (~14:00 – 14:45)

CPs are **<u>required</u>** to login DCASS via their DCASS Online workstations during the RT.

Part B: Simulation of Clearing Operations (~14:45 – 20:00)

DCASS online session is available during the RT. After each phase of production cutover during the CT, CPs are **<u>required</u>** to perform post-trade activities, such as Rectify Trade, Trade Give-up / Take-up, Position Net Down and Internal Position Transfer.

Part C: Download Report via Report Retrieval Solution

For CPs who retrieve DCASS reports via Secured File Transfer Protocol ("SFTP") using HSN. In each phase of production cutover during the CT, CPs are **required** to retrieve production DCASS reports via SFTP during the RT.

3. Important Notes to CPs

3.1 Technical setup for the RT

CPs should note the following technical requirements for the RT:

i) CPs should use their DCASS Online workstations to access DCASS via the existing URL; and

ii) CPs should ensure that Google Chrome browser has been installed in their DCASS Online workstations

3.2 Preparation and Execution of the RT

CPs should note the following arrangements for the preparation and execution of the RT:

i) **CPs are required to login DCASS via their DCASS Online at 14:00 promptly to start the RT on time**.

ii) **CPs shall use the production user ID as of 24 July 2019 with the testing password "hkextesting" to access DCASS during the RT**. Besides, CPs should ensure the participating staff members have appropriate user function access right to perform the required clearing activities at DCASS during the RT. **CPs' DCASS Administrators are not encouraged to change the users function access during the RT because it will take time to take effect.**

iii) CPs shall use the **SFTP user ID as of day end on 30 August 2019 to retrieve production DCASS reports during the RT**.

iv) CPs should ensure that they have access to the emails of the designated contact persons for the RT in order to receive reports/files and obtain emergency messages from HKEX during the RT.

v) CPs should refer to the Checklist in Appendix A for the action items to be performed before, during and after the RT. In order to achieve the testing objectives, participating users should familiarize themselves with the requirements and procedures prior to the RT.

vi) CPs are recommended to maintain a proper audit trail in respect of each transaction input during the RT in accordance with the policy currently adopted by them. The Responsible Officer or his/her designate of each participating CP should be present during the RT to supervise the testing process and to be responsible for relaying any issues arising during the RT to HKEX. CPs should execute post-trade transactions via DCASS Online during the RT with the data set up and execution set forth in Appendix B.

vii) CPs shall fill in and return the "**HSN Readiness Test Result Confirmation Form**" to HKEX via email or fax **at or before 18:00 on 2 September 2019**.

4. Schedule and Arrangement

4.1 Overview

The RT will be held on Saturday, 31 August 2019. During the RT, pre-defined trades and positions will be available for CPs to perform post-trade activities.

4.2 Schedule and Timetable

The RT will be held on Saturday, 31 August 2019. CPs are requested to ensure their DCASS Online workstations will be available during the RT.

Execution Date: **31 August 2019 (Saturday)**
System Date: **31 August 2019**

TESTING TIME		DCASS PROCESSING	REMARKS
FROM	TO		
DCASS Login Test – CPs			
14:00	**14:45**	Perform DCASS login test	• CPs login DCASS by using production user IDs as of 24 July 2019 with the testing password "hkextesting".
Phase 1: Replacement of HSN Firewalls			
14:45	**16:00**	DCASS online session ready CPs perform post-trade transactions CPs download DCASS reports	• CPs perform post-trade (e.g. Rectify Trade, Trade Give-up / Take-up, Position net down, Internal Position Transfer) • CPs download any one of production DCASS reports via SFTP
16:00		DCASS online session close	• CPs cannot input post-trade transactions • CPs should logout from DCASS
Phase 2: Replacement of Primary HSN network switches			
16:00 – 17:00		No testing activities are allowed	
17:00	**18:00**	DCASS online session ready CPs perform post-trade transactions CPs download DCASS reports	• CPs perform post-trade (e.g. Rectify Trade, Trade Give-up / Take-up, Position net down, Internal Position Transfer) • CPs download any one of production DCASS reports via SFTP
18:00		DCASS online session close	• CPs cannot input post-trade transactions • CPs should logout from DCASS
Phase 3: Replacement of Secondary HSN network switches			

TESTING TIME FROM TO	DCASS PROCESSING	REMARKS
18:00 – 19:00	No testing activities are allowed	
19:00 20:00	DCASS online session ready CPs perform post-trade transactions CPs download DCASS reports	• CPs perform post-trade (e.g. Rectify Trade, Trade Give-up / Take-up, Position net down, Internal Position Transfer) • CPs download any one of production DCASS reports via SFTP
20:00	DCASS online session close	• CPs cannot input post-trade transactions • CPs should logout from DCASS
HSN Commissioning Test (Optional)		
20:00 – 21:00	CPs are optional to perform commissioning test	
HKEX restore HSN from Testing to Production **HKEX restore DCASS to Production**		
21:00 00:00	HKEX restore HSN and DCASS to Production	• DCASS login is not allowed during restoration
Production Connectivity Health Check (1 September 2019)		
09:00 10:30	CPs to perform production connectivity to DCASS	• CPs should use their production user ID and password to login DCASS to perform connectivity health check
Submission of Readiness Test Confirmation Form (2 September 2019)		
before 18:00	Complete and submit the duly signed HSN Readiness Test Result Confirmation Form to HKEX via email or fax	• Submit completed "**HSN Readiness Test Result Confirmation Form**" to HKEX Hosting Service Desk (Email: hsservicedesk@hkex.com.hk Fax: (852) 2462-0722)

4.3   User ID and Login Password

CPs should use their **DCASS production user IDs as of 24 July 2019 and testing password** "**hkextesting**" to access DCASS via DCASS Online workstations during the RT.

4.4   Test Environment

When CPs login DCASS, they will be simulating production operation as if 31 August 2019 is a normal business day. HKEX will prepare a clean environment for DCASS. CPs should refer to points (2) and (3) of Appendix B for details of *pre-defined trades and post-trades* to facilitate them to perform post-trade activities during the RT.

4.5   Transactions to be Executed

CPs should execute post-trade transactions via DCASS Online workstations during the RT. There will be **NO** access to CCMS during the RT. CPs should refer to Appendix B for the detailed execution script during the DCASS online session.

4.6   Test Confirmation

All participated CPs are requested to complete and return the "**HSN Readiness Test Result Confirmation Form**" to HKEX via email or fax **at or before 18:00 on 2 September 2019**.

5.   Communication Channels

Under normal situation, HKEX will communicate with the designated contact persons of the CPs during the RT via e-mails and/or phone calls.

In the event of cancellation or postponement of the RT if contingency happened two hours before the test starts (i.e. **12:00 on 31 August 2019**) due to unexpected situations, HKEX will inform CPs of the ad-hoc arrangements via email and/or SMS.

CPs should ensure that their designated contact persons for the RT are reachable during the prescribed time and the relevant email and mobile phone numbers submitted to HKEX must be accurate.

6. Help Desk

For any DCASS connectivity queries about the RT, CPs can email at clearingpsd@hkex.com.hk for assistance.

For any HSN connectivity queries about the RT, CPs can contact **Hosting Service Desk Hotline at 2211-6860** or email at hsservicedesk@hkex.com.hk for assistance.

APPENDIX A: Checklist for Readiness Test

ITEMS TO BE CHECKED	✔
(A) Before the Test	
1 Have you read and understood this document ("**HKEX Readiness Test on 31 August 2019 - Information Package for HKCC / SEOCH Participants**")?	
2 Have you (if necessary) passed this document to your internal IT support team or system vendor and ensured that they would make follow-up action?	
3 Have you ensured that the participating users have experience in conducting DCASS related activities and have appropriate user function access to perform the required activities in DCASS and/or your internal systems during the Test?	
4 Have you established appropriate procedures to restore your production version of internal system upon completion of the Test and verification control to ensure system readiness for normal business operations on the following Business Day, i.e. Monday, 2 September 2019?	
5 Have you arranged IT and/ or system vendor support with appropriate system administration ID during the Test in case there is any technical problem?	
(B) On 31 August 2019, before executing test cases and during the Test	
1 Have your designated contact persons of the Test already logged in their e-mail accounts to obtain announcement during the Test?	
2 Have you performed the Login Test via your DCASS Online workstations?	
3 Have you performed all required post-trade activities?	
4 Have you downloaded the DCASS reports via SFTP?	
(C) After the Test	
1 Have you submitted the "**HSN Readiness Test Result Confirmation Form**" to HKEX at or before 18:00 on 2 September 2019?	

APPENDIX B: Data Set up and Execution Requirements for Readiness Test

(1) Post-trade Transactions in DCASS

The following dummy Participant will act as the counterparty of the post-trade transactions executed by CPs.

DCASS Customer Code: CCCC   Company Name: CCC Company Limited

(2) Pre-defined Trades/Positions in DCASS

Each CP will have the following trades/positions in their DCASS Omnibus Client account to ensure they have sufficient data to start the RT:

Pre-defined trades of the respective Trade Dates, Series and Free Text in DCASS **Omnibus Client** account will be available for each CP, the pre-defined position of each series is **110 Long and 100 Short**:

Trade Date	Trading Session	Clearing Date	Series	Free Text
31 August 2019	**T**	31 August 2019	HSIU9	RT_F1
			HHIU9	RT_F2
			MHIU9	RT_F3
			MCHU9	RT_F4

Trade Date	Clearing Date	Series	Free Text
31 August 2019	31 August 2019	HEX280.00I9	RT_S1
31 August 2019	31 August 2019	HEX280.00U9	RT_S2

(3) **Execution Requirements**

Execution Date	31 August 2019
Logical Date	31 August 2019
Description	
Clearing Operations at DCASS	CPs to perform **any one** of the following post-trade activities in the RT: • Rectify trade • Give-up / Take-up • Position Net Down • Internal position transfer
Report Retrieval	CPs to retrieve **production DCASS report**s in the RT
Success Criteria	CPs can successfully perform post-trade transactions via DCASS Online and where applicable, download reports via SFTP during the RT