



## **HKATS and DCASS Upgrade**

# **Rollout Information Package for Clearing Participants**

Issue Date: April 2019

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## 1. Introduction

The Market Rehearsal for the upgrade of Hong Kong Futures Automated Trading System (HKATS) and Derivatives Clearing and Settlement System (DCASS) from Genium INET Platform to the upgraded version of platform (“the Upgrade”) was completed successfully. Hong Kong Exchanges and Clearing Limited (HKEX) is pleased to announce that the Upgrade will be launched on **6 May 2019 (Monday)**.

HKEX will upgrade HKATS and DCASS from Genium INET to the Upgrade during the weekend immediately before the launch day (Cutover Period). **It is mandatory for all Clearing Participants (CP) to participate in a Post-Release Verification Session from 9:00 a.m. to 12:00 noon on 5 May 2019 (Sunday) to perform DCASS connectivity test and data verification.**

During the Cutover Period, i.e. after the close of business on 3 May 2019 (Friday) (including T+1 clearing service close at 1:45 a.m. on Saturday, 4 May 2019) but before the Post-Release Verification Session on 5 May 2019 (Sunday), CP should setup the workstation for DCASS Online (with Chrome version 68.0.3440.106) with authorised IP range, upgrade their Back Office Systems (BOS), DCASS OMnet Application Programming Interface (OAPI) programs (if applicable) and other internal systems to the Upgrade version.

Upon the launch of the Upgrade, there will be a two-week stabilisation period, starting from start of T Session on 6 May 2019 (Monday) to close of T+1 Session on 17 May 2019 (Friday) (Stabilisation Period). During the Stabilisation Period, in the unlikely situation where the Upgrade may encounter irreparable incidents, HKEX may, as a last resort, trigger the “**Fallback Plan for HKATS and DCASS Upgrade to Genium INET Platform**” (the Fallback Plan) to revert to the existing HKATS and DCASS Genium INET application for resumption of trading and clearing services. From the close of business on 3 May 2019 until the end of the Stabilisation Period, CP should **NOT** dispose or decommission their Genium INET DCASS servers and terminals, Network Gateway (NG), DCASS OAPI programs (certified on Genium INET platform), BOS of Genium INET version and other internal systems, where applicable.

This Rollout Information Package aims to provide a detailed guideline for CP to plan out their activities before, during, and after the Upgrade. A “**DCASS Rollout Activity Checklist**” is provided in Appendix A for CP’s quick reference. Detailed rollout arrangements related to trading operations will be provided to Exchange Participants via a separate circular and Information Package.

CP should note that the information contained in this Rollout Information Package, together with other related documents (in particular, the Fallback Plan) which are available at the [HKATS and DCASS Upgrade](#) web corner of HKEX, are essential for the smooth transition from the Genium INET operations to the Upgrade operations. CP are strongly advised to pass a copy of this Rollout Information Package to their IT / systems support teams / system vendors as soon as possible.

## 2. Preparation for the Rollout

### 2.1 DCASS Online Features

CP should have practised the DCASS Online features during the Market Rehearsal. Detailed descriptions of the DCASS functions are documented in the “[DCASS User Guide \(applicable after HKATS & DCASS Upgrade\)](#)” which is available at HKEX website.

### 2.2 DCASS Logon Passwords and User Access Profile

Reference was made to the circular dated 1 February 2019 (Ref. No. : [CD/CDCO/DCASS/016/2019](#)), CP are reminded to keep records of their passwords for accessing DCASS until the end of the Stabilisation Period.

For the Post-Release Verification Session to be performed on 5 May 2019 (Sunday), CP should logon to DCASS via their DCASS Online and upgraded DCASS OAPI programs (if applicable) with the passwords as of day end of 3 May 2019 (Friday).

In case the DCASS logon passwords have expired, CP can request their DCASS Administrators to reset the logon passwords. In case of needs during the Post-Release Verification Session on 5 May 2019 (Sunday), CP can request HKEX to reset logon passwords on their behalf by submitting the “**DCASS Post-Release Verification - Password Reset Form**” as set forth in Appendix B to HKEX via email.

On the launch day of the Upgrade, CP should use the same DCASS logon passwords which have already been verified during the Post-Release Verification Session on 5 May 2019 (Sunday).

### 2.3 DCASS OAPI Programs

Upon the launch of the Upgrade, CP should connect to DCASS with the certified and tested DCASS OAPI programs for the Upgrade. CP should ensure their DCASS OAPI programs are set/configured with the appropriate parameters, including facility types, logon passwords, network configuration (such as subnet masks and default gateways etc.) and port numbers of HKEX’s Central Gateways (CGs), where applicable.

## 2.4 BOS

CP should already, based on their operational needs, upgraded their BOS to cater for the Upgrade. CP should ensure that they have developed proper procedures for upgrading as well as fallback of their BOS from the Cutover Period until the end of the Stabilisation Period.

## 2.5 Report Retrieval Solution

Upon the launch of Upgrade, CP can only retrieve DCASS Reports via Report Retrieval Solution from 6 May 2019 (Monday). CP should backup their existing DCASS reports properly prior to the rollout date. CP should ensure their SFTP programs are ready for downloading DCASS reports and set/configured with the appropriate parameters, including public/private keys and related network configuration, where applicable.

## 2.6 Technical Prerequisite for DCASS Online Connection

CP should have performed the DCASS Online connectivity during the Market Rehearsal. Detailed hardware, software and infrastructure of the DCASS Online are documented in the "[Information Paper on HKATS & DCASS Upgrade \(Sep 2018\)](#)" which is available at HKEX website.

## 2.7 Suspension for DCASS Server Connection

During the Cutover Period (after of the close of business on 3 May 2019, Friday to 4 May 2019, Saturday), CP should manually disable all Windows services of all DCASS Servers. For detailed procedures to disable the Windows services of DCASS Servers, please refer to Appendix D.

During the Stabilisation Period (6 May 2019 to 17 May 2019), CP must ensure that all Windows services of DCASS Servers are **Disabled**.

## 2.8 Arrangement of Technical and Operational Supports

CP should arrange adequate support from their internal IT / system support teams and/or system vendors from the Cutover Period until the end of the Stabilisation Period.

CP should arrange operational staff to perform the connectivity test and data verification during the Post-Release Verification Session on 5 May 2019 (Sunday). Moreover, during the Stabilisation Period, CP should arrange sufficient resources to standby for possible re-input of any clearing transactions into DCASS in case of fallback.

## 2.9 Maintain Genium INET Platform Infrastructure until the End of the Stabilisation Period

To cater for the unlikely situation where DCASS has to fallback to Genium INET Platform, from the night before the Cutover Period until the end of the Stabilisation Period, CP are requested to follow the below guidelines:

a. NGs

CP must retain and keep their NGs **POWERED ON**. In case of fallback, HKEX would re-establish Genium INET HKATS and DCASS connection to CP's NGs.

b. DCASS Terminals

CP are required to retain their Genium INET DCASS shortcuts at the DCASS Terminals for accessing Genium INET DCASS in case of fallback.

c. DCASS OAPI Programs

CP are required to maintain their DCASS OAPI Programs for Genium INET so as to reinstate their operations in case of fallback. Alternatively, CP may resort to DCASS Terminals in case of fallback.

d. DCASS Logon Passwords and User Access Profiles

To ensure CP can access to Genium INET DCASS in case of fallback, CP are reminded to keep records of their passwords for accessing DCASS until the completion of the Stabilisation Period. In case of fallback, CP should logon DCASS via DCASS Terminals and DCASS OAPI programs (if applicable) with their passwords **as of day end of 3 May 2019 (Friday)**.

e. BOS and Other In-house Arrangements

CP should develop proper fallback procedures for their BOS and other in-house arrangements. CP should also establish proper data update policy to synchronise the clearing data at their BOS between the Upgrade and Genium INET versions. Both fallback procedures and data update policy should be tested thoroughly before the launch day.

After the close of the business before the cutover day, i.e. 3 May 2019 (Friday), CP should back-up all their critical business data in their BOS of Genium INET version and safe keep the backup image in case of fallback.

### 3. Post-Release Verification Session on 5 May 2019 (Sunday)

#### 3.1 Post-Release Verification

To minimise the risk of having unexpected technical problems on the launch day and to ensure the smooth transitions of clearing operations, it is **mandatory for all CP to participate in the Post-Release Verification Session, from 9:00 a.m. to 12:00 noon on 5 May 2019 (Sunday)**, including:

##### a. DCASS Connectivity

CP should logon to the DCASS Online via the designated primary data centre URL as set forth in Appendix C before performing data verification. Secondary data centre is not available under normal circumstances.

##### b. DCASS Data Verification

CP should verify and ensure the correctness of their DCASS data, including post-trades and positions available in DCASS Online against their internal records and/or DCASS Genium INET. CP should also assess their operational need and determine the scope of the data verification.

Upon completion of the post-release verification, CP are required to complete and submit the duly signed “**HKATS and DCASS Upgrade - Confirmation Form for Post-Release Verification**” as set forth in Appendix E to HKEX via email **by 12:30 p.m. on 5 May 2019 (Sunday)**.

#### 3.2 Schedule for Post-Release Verification Session on 5 May 2019 (Sunday)

Time	Activities	Remarks
9:00 a.m. to 12:00 noon	DCASS Connectivity and data verification	<ul style="list-style-type: none"> <li>• <u>For DCASS Online users</u> : refer to Appendix C for the designated URL of DCASS Online connection</li> <li>• <u>For DCASS OAPI users</u> : should connect via the primary connections, i.e. IP address 10.151.5.81 and/or 10.151.5.82</li> <li>• Use DCASS logon passwords as of day end of 3 May 2019</li> <li>• Only enquiry functions will be available</li> <li>• <b><u>NO</u></b> post-trade activities is allowed</li> </ul>
12:00 noon	End of Post-Release Verification Session	Logout from DCASS

<b>Time</b>	<b>Activities</b>	<b>Remarks</b>
12:00 noon to 12:30 p.m.	Complete and submit the duly signed " <b>HKATS and DCASS Upgrade – Confirmation for Post-Release Verification</b> " to HKEX via email	Refer to Appendix E for the Form

### **3.3 Communication Channels**

Under normal situation, HKEX will communicate with the designated contact persons of the CP via e-mail and/or phone calls.

In the event of cancellation or postponement of the Post-Release Verification Session, if contingency happened before 7:00 a.m. on 5 May 2019 due to unexpected reasons, HKEX will inform CP of the ad-hoc arrangements via e-mails and/or phone calls.

CP should ensure that their designated contact persons for the Post-Release Verification Session are reachable during the prescribed time and the relevant e-mails and mobile phone numbers submitted to HKEX must be accurate.



## **4. From the HKATS and DCASS Upgrade Launch Day to the End of Stabilisation Period**

### **4.1 DCASS Logon**

On the launch day, 6 May 2019 (Monday), CP are highly recommended to logon to DCASS earlier before market open to ensure their clearing activities can be performed smoothly.

CP who have encountered any connection problem please contact DCASS Hotline at 2979 7222.

### **4.2 Retention of DCASS Reports and Audit Trail Record**

During the Stabilisation Period, CP are reminded to maintain proper and sufficient audit trail records, including DCASS reports, in respect of each clearing transaction input into DCASS.

## **5 Communication Channels**

HKEX will communicate with CP for matters relating to the Upgrade via circulars, clearing messages at DCASS, e-mails and/or phone calls.

For any enquiries about the Upgrade, please contact DCASS Hotline at 2979 7222 during normal office hours from 9:00 a.m. to 6:45 p.m. (Mondays to Fridays, excluding public holidays).

**Appendix A: DCASS Upgrade Rollout Activity Checklist – Clearing Participants**

ITEMS TO BE CHECKED		√
<b><i>(A) Before the HKATS and DCASS Upgrade</i></b>		
1.	Have you read and understood this document (“Rollout Information Package for HKATS and DCASS Upgrade”)?	
2.	Have you provided HKEX with your updated contact (including mobile phone number(s) and email address(s)) of the designated Project Coordinator(s)?	
3.	Have you passed this Rollout Information Package to your internal IT / system support teams and/or system vendor and ensured that they will provide necessary support?	
4.	Have you ensured your certified DCASS OAPI programs configured with appropriate setup for the Upgrade?	
5.	Have you ensured your SFTP programs for Report Retrieval Solution are configured with appropriate setup and ready for downloading DCASS Reports for the Upgrade?	
6.	Have you backup your existing DCASS reports properly prior the Upgrade?	
7.	Have you lined up with your internal IT / system support and/or system vendor and ensured that they will reserve sufficient resources to support your BOS / OAPI upgrade?	
8.	In case you forgot your DCASS passwords, have you arranged your DCASS Administrator standby to reset the passwords during the Post-Release Verification Session on 5 May 2019 (Sunday)?	
9.	Have the hardware, software and infrastructure of the DCASS online been installed?	
<b><i>(B) Day end before Cutover Day (3 May 2019, Friday) until the end of Stabilisation Period</i></b>		
10.	Have you backed up of all critical business data as well as DCASS related programs?	
11.	Have you printed and/or downloaded all reports from DCASS server before the launch of the HKATS and DCASS Upgrade?	

ITEMS TO BE CHECKED		√
<b>(C) During Cutover Period (after day end of 3 May 2019 (Friday) to 4 May 2019 (Saturday))</b>		
12.	If you would upgrade your BOS and DCASS OAPI Programs, have you arranged your internal IT / system support teams and/or system vendor to complete the upgrade before the Post-Release Verification Session on 5 May 2019?	
13.	Have you arranged to make back-up and keep proper records of all your DCASS, BOS and other internal records before upgrading your BOS and DCASS OAPI Programs?	
14.	Have you disabled all Windows services of all DCASS Servers?	
<b>(D) During the Post-Release Verification Session (9:00 a.m. to 12:00 noon on 5 May 2019)</b>		
15.	Have you followed the URL for DCASS Online connection as per Appendix C before you login via DCASS Online?	
16.	Have you verified the clearing data available via DCASS Online against your production data/records backup from DCASS terminal?	
17.	Have you submitted the “ <b>HKATS and DCASS Upgrade - Confirmation Form for Post-Release Verification</b> ” as per Appendix E via email at <a href="mailto:clearingpsd@hkex.com.hk">clearingpsd@hkex.com.hk</a> for the readiness for HKATS and DCASS Upgrade before 12:30 p.m. on 5 May 2019 (Sunday)?	
<b>(E) During the Stabilisation Period (6 May 2019 to 17 May 2019)</b>		
18.	Have you maintained your Genium INET version’s BOS, OAPI Programs and other in-house arrangement, where applicable, in order to reinstate their operations in case of fallback?	
19.	Have you kept any passwords and/or user access profiles of DCASS Terminal/OAPI programs UNCHANGED during the Stabilisation Period?	
20.	Have you retrieved the DCASS reports, including intra-day reports generated each day?	
21.	Have you ensured that proper records of all clearing information, including post-trade transactions are well kept in case of fallback?	
22.	Have you ensured that all Windows services of all DCASS servers are DISABLED?	

**Appendix B: DCASS Post-Release Verification - Password Reset Form**

To: Clearing Operations – Cash & Derivatives Clearing  
Hong Kong Exchanges and Clearing Limited

E-mail : [clearingpsd@hkex.com.hk](mailto:clearingpsd@hkex.com.hk)  
Telephone No : 2211-6932

Participant Full Name [* HKCC / SEOCH / Both HKCC & SEOCH] Participant) <i>*Please circle where appropriate</i>		DCASS Customer Code
Contact Person ( <i>Primary</i> )	Phone No.	E-mail Address
Contact Person ( <i>Alternate, if applicable</i> )	Phone No.	E-mail Address

**Clearing Participants who are holding participantship with both HKCC and SEOCH can submit one Form by circling "Both"**

**Note:** This Form is only applicable to reset password during the Post-Release Verification Session from 9:00 a.m. to 12:00 noon on 5 May 2019 (Sunday). Clearing Participants are reminded that the reset passwords will be carried forward for production use on 6 May 2019 (Monday).

*Please tick in the appropriate checkbox and fill in the relevant User ID(s) below:*

<input type="checkbox"/> <b>DCASS Online User (e.g. BU_Cxxx101)</b>
(1) _____ (2) _____
<input type="checkbox"/> <b>DCASS OAPI User (e.g. BO_Cxxx801 / 901)</b>
(1) _____ (3) _____ (5) _____ (2) _____ (4) _____ (6) _____
<input type="checkbox"/> <b>DCASS Administration User (e.g. BU_Cxxx201)</b>
(1) _____ (2) _____

S.V.  


\_\_\_\_\_  
Authorized Signature(s)  
(with company chop, ONLY applicable if it forms part of your signing instruction)

\_\_\_\_\_  
Date

(Name of Signatories: \_\_\_\_\_ )

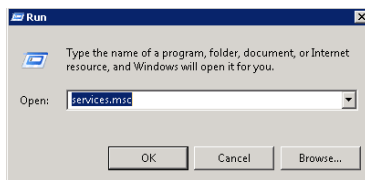
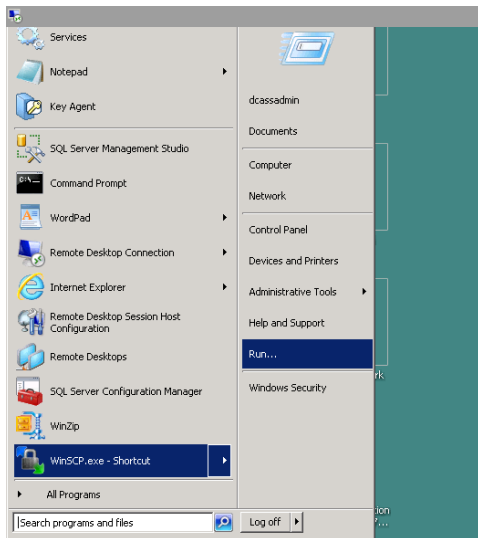
## Appendix C: URL for DCASS Online connection

Clearing Participants please logon to DCASS Online via URL from the Primary Data Centre:

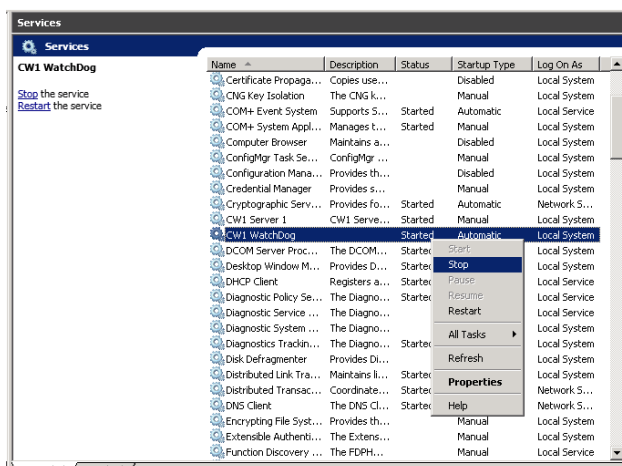
HKEX's Data Centre	Gateway number	IP Address (Server Name)	Host Table Update	TCP / Port No.	URL of DCASS Online connection
<b>Primary</b>	1	10.151.14.155 (pgencdw001)	10.151.14.155 pgencdw001.hkex.com.hk	8082	<a href="https://pgencdw001.hkex.com.hk:8082/login">https://pgencdw001.hkex.com.hk:8082/login</a>
	2	10.151.14.156 (pgencdw002)	10.151.14.156 pgencdw002.hkex.com.hk		<a href="https://pgencdw002.hkex.com.hk:8082/login">https://pgencdw002.hkex.com.hk:8082/login</a>
	3	10.151.14.101 (pgenrgw001)	10.151.14.101 pgenrgw001.hkex.com.hk		<a href="https://pgenrgw001.hkex.com.hk:8082/login">https://pgenrgw001.hkex.com.hk:8082/login</a>
	4	10.151.14.102 (pgenrgw002)	10.151.14.102 pgenrgw002.hkex.com.hk		<a href="https://pgenrgw002.hkex.com.hk:8082/login">https://pgenrgw002.hkex.com.hk:8082/login</a>

## Appendix D Procedures to disable the Windows services of DCASS Servers

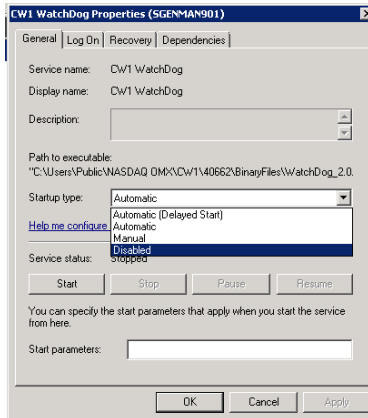
1. To open Windows services,
  - click on your Start button to open the Windows Menu. Select Run. This opens the Run box. Type services.msc in it and hit Enter to open the Services Manager.



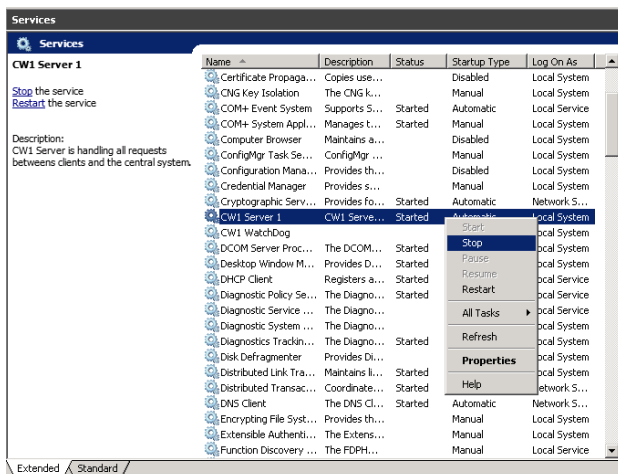
2. To disable the Windows task service of DCASS Server WatchDog,
  - highlight the service “CW1 WatchDog” under the Name column. Right-click and select Stop to stop the Windows services of DCASS Server WatchDog.



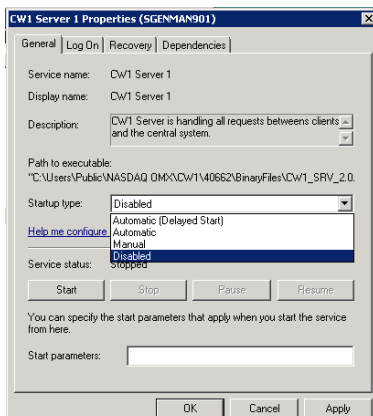
- double-click on the service “CW1 WatchDog” to open its Properties box. In the Properties box, select Disabled in the Startup type drop-down menu, then press Apply button and OK button.



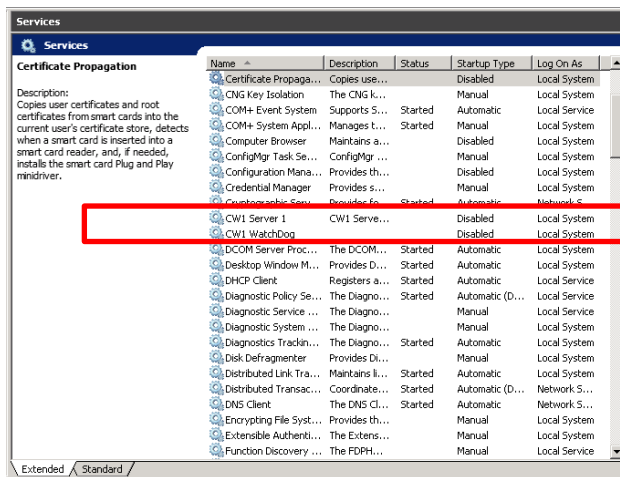
- To disable the Windows service of DCASS Server,
  - highlight the service “CW1 Server 1” under the Name column. Right-click and select Stop to stop the Windows services of DCASS Server.



- double-click on the Service “CW1 Server 1” to open its Properties box. In the Properties box, select Disabled in the Startup type drop-down menu, then press Apply button and OK button.



4. Ensure that both Windows service of *CW1 Server 1* and *CW1 WatchDog* are **Disabled**.





**Appendix E: HKATS and DCASS Upgrade – Confirmation for Post-Release Verification**

To: Clearing Operations – Cash & Derivatives Clearing  
Hong Kong Exchanges and Clearing Limited

E-mail : [clearingpsd@hkex.com.hk](mailto:clearingpsd@hkex.com.hk)  
DCASS Hotline: 2979-7222

**Form submission deadline: at or before 12:30 p.m. on 5 May 2019 (Sunday)**

Participant Full Name [* HKCC / SEOCH / Both HKCC & SEOCH] Participant) <i>*Please circle where appropriate</i>		DCASS Customer Code
Contact Person ( <i>Primary</i> )	Phone No.	E-mail Address
Contact Person ( <i>Alternate, if applicable</i> )	Phone No.	E-mail Address

**Clearing Participants who are holding participants with both HKCC and SEOCH can submit one Form by circling "Both"**

**We have completed the HKATS and DCASS Upgrade post-release verification successfully, covering DCASS connections and data verification..**

S.V.



\_\_\_\_\_  
Authorized Signature(s)  
(with company chop, ONLY applicable if it forms  
part of your signing instruction)

\_\_\_\_\_  
Date

(Name of Signatories: \_\_\_\_\_ )