Section A – Notes to the Application

a. **China Connect Central Gateway (CCCG) Session:** CCCG in the application form and explanatory note has the same meaning of China Connect Central Gateway (CCCG) as defined in the Rules of the Exchange. CCCG is a hardware and software component operated by the Exchange, which provides the communications interface between the CSC and the Broker Supplied Systems (BSS) of the China Connect Exchange Participants and other devices. EPs may connect their BSS to CCCG via subscription to one or more CCCG sessions. CCCG session is for trading (i.e. for orders submission) only and do not carry securities market data. EPs may subscribe to market data directly from HKEX Orion Market Data Platform – China Connect (Securities) (OMD-CC), directly from Shanghai and/or Shenzhen Stock Exchange and/or indirectly via information vendors. For each CCCG session an EP subscribes, it may apply for a Backup CCCG session.

b. **Message Protocol:** A CCCG session can support either Binary or FIX message protocol. Selection must be specified before the connection. EP should refer to the interface specifications of CCCG for details of these two message protocols at http://www.hkex.com.hk/mutual-market/stock-connect/reference-materials/technical-documents?sc_lang=en.

c. **IP Address Scheme for CCCG/BSS:** It will be provided separately in the Connectivity Guide HKEX CCCG Platform. EP should assign the IP addresses within their own usable IP address range to the CCCG session. IP addresses which have already been assigned by other Eps will not be allowed to be used.

d. **Testing Requirement of a CCCG Session under application:** A full cycle of BSS conformance test shall include offline simulator test, end-to-end test and rollout test. BSS testing package can be downloaded via Electronic Communication Platform (ECP). Potential EP, who has submitted CCCG Session Application Form, may contact HKEX – Participant General Enquiry Hotline at 2840-3626 for collection of the BSS testing package. After submission of positive simulator test and end-to-end test results, HKEX will schedule EP to conduct rollout test to verify the connection among BSS, the applied CCCG session and CSC Host via production circuits.

Below is the different types of conformance test required for the application for a new CCCG session:

	BSS Version	Network to be connected	Type of Conformance Test required to conduct		
			Offline Simulator Test	End-to-End Test	Rollout Test
Application for a CCCG session	New BSS	New SDNet/2 or HSN	Yes	Yes	Yes
	New BSS	Existing SDNet/2 or HSN	Yes	Yes	Yes (*"Not Required" if EP agrees with limited support/ troubleshoot from HKEX during weekdays*)[NB1]
	Existing BSS	New SDNet/2 or HSN	No	No	Yes
	Existing BSS	Existing SDNet/2 or HSN	No	No	Yes (*"Not Required" if EP agrees with limited support/ troubleshoot from HKEX during weekdays*)[NB1]

[NB1] Rollout test is applicable for a new CCCG session application. If the new CCCG session will connect to existing SDNet/2 or HSN and EP wishes not to participate in the Rollout Test, EP is required to complete and return the "Application for Exemption from Conducting Rollout Test".

If exemption is granted, the EP applied for the new CCCG session will undertake all possible technical and/or operational risks, that may have been resulted from non-participation in Rollout Test to verify the connection of the new CCCG session.   The EP also warrants that it will not request HKEX to carry out any troubleshooting or changes in production environment for, and not limited to, server hardware, system software, network setting or network equipment (e.g. circuits, router, switch & firewall), from Monday to Friday in case of failure in connection of the applied CCCG session during initial rollout.

e. **Rollout the New CCCG Session:** EP may rollout the new CCCG session after successful completion of required test(s), submission of offline simulator test confirmation reply, end-to-end test confirmation reply, execution checklist (if applicable), BSS Declaration and rollout notification to HKEX by giving not less than 1 week in advance notice.

f. **Relocation of Existing Circuits Connected to BSS:** EP has to inform HKEX by submitting the "Requisition Form for Change of BSS Connection Information for China Connect Central Gateway (CCCG)/ China Connect Drop Copy Session" at least 3 trading days prior to the effective date.   EP is required to participate in the Rollout Test.   If an EP wishes not to participate in the Rollout Test, it is required to complete and return the "Application for Exemption from Conducting Rollout Test".   If the exemption is granted, the EP undertakes all possible technical and/or operational risks, that may have been resulted from non-participation in Rollout Test to verify connection of the BSS after relocation.   The EP also warrants that it will not request HKEX to carry out any troubleshooting or changes in production environment for, and not limited to, server hardware, system software, network setting or network equipment (e.g. circuits, router, switch & firewall), from Monday to Friday in case of failure in connection of the BSS after the relocation.

g. **Standard CCCG Throttle Rate Assignment:** One standard CCCG throttle rate provides the throughput of two messages per second. Maximum of 250 standard CCCG throttle rate(s) can be assigned to a CCCG session (including throttle rates acquired from the Exchange and throttle rates subscribed under the China Connect Monthly Throttle Subscription Scheme).   CCCG throttle rates are for trading through CSC which cannot be transferred to OTP-C trading device for trading Hong Kong stocks via OTP-C, and vice versa.

h. **Message Rate Throttling:** All in-bound messages such as order submission, order cancel, etc. are collectively referred to as messages.   Messages exceeding the entitled message rate will be rejected and BSS should be able to re-submit the message(s) when necessary.   HKEX reserves the right to disconnect a CCCG session, without any further exchange of messages, if that CCCG session is found to be violating the entitled message rate excessively.

i. **Broker Number Assignment:** EP is required to assign at least one broker number to each CCCG session. EP may request for an additional new broker number(s) for assignment to a CCCG session but the quantity should not be more than the standard throttle rate(s) assigned.   Each EP cannot have more than 80 broker numbers in total for all trading devices connected to OTP-C and CSC.   One broker number cannot be assigned to multiple CCCG sessions or facilities for trading purpose. HKEX reserves the right to accept or reject the request of additional new broker number without further explanation.

j. **Circuit and Network Switch Installation:** Dual-circuit connection is required for connecting each CCCG session to CSC.   EP can either install dedicated dual circuits for CCCG session(s), or share the same dual circuits of CCCG session(s) with other HKEX applications, depending on the type of network subscription. Please refer to the table below for details.   EP should ensure sufficient bandwidth to meet the needs of different HKEX applications, and consider system resiliency.

Type of network subscription	Other HKEX applications allowed to **share same circuits with CCCG session(s)**					
	CC Drop-Copy	OMD-CC	OCG-C	Drop-Copy	OMD-C	Kill Switch
(i) SDNet/2 circuit	✓	✓	✓	✓	✓	✓
(ii) SDNet/2 ASP connection	✓	✓	✓	✓	✓	✓
(iii) HSN	✓	✓	✓	✓	✓	✓
(iv) HSN Virtual Port Service	✓	✓	✓	✓	✓	✓

✓   *allow to share same circuits with CCCG session(s)*
X   *not allow to share same circuits with CCCG session(s)*

Type of network subscription:

(i) via SDNet/2 circuits provided by Accredited Vendor. The contact information of Accredited Vendor is posted at HKEX website

http://www.hkex.com.hk/Services/Connectivity/SDNet-2/Securities-Trading-(AMS3-Shanghai-and-Shenzhen-Connect)?sc_lang=en.

(ii) via SDNet/2 Application Service Provider (ASP) connection provided by ASP. ASP subscribes SDNet/2 circuits from Accredited Vendor, provides shared SDNet/2 circuits connectivity to multiple EPs, and manages the network connectivity on behalf of its service subscribers. However, there is a cap on the number of EPs and turnover market share on each SDNet/2 ASP connection to minimize concentration risk. EP may check with the ASP for details before subscribing to the services. In addition, EP should check with the ASP the circuit number, IP addresses and the installation date in order to fill in the form of Application for China Connect Central Gateway.

For more information on ASP connection, please refer to "Frequently Asked Questions" of SDNet/2 on HKEX website http://www.hkex.com.hk/Global/Exchange/FAQ/Securities-Market/Trading/SDNET-2?sc_lang=en.

(iii) via HKEX Service Network (HSN) provided by HKEX Hosting Services. The contact information of HKEX Hosting Services is posted at HKEX website http://www.hkex.com.hk/services/connectivity/hosting-services?sc_lang=en.

(iv) via HSN Virtual Port Service provided by HKEX Hosting Services Approved ASP. Multiple EP's trading facilities can be aggregated on the same HSN connection. However, there is a cap on number of EPs and turnover market share on each aggregated HSN connection to minimize concentration risk. EP may check with the HKEX Hosting Services Approved ASP before subscribing to the services. In addition, EP should check with the HKEX Hosting Services Approved ASP circuit number, IP addresses and installation date in order to fill in the form of Application for China Connect Central Gateway.

EP is responsible for arranging with network provider directly for circuits and network switch(es) installation, quotation and billing arrangement. EP should ensure the readiness of circuits and network switch(es) prior to connecting to CCCG session. For further details on network configuration, EP should refer to the Connectivity Guide HKEX CCCG Platform.

For market data related arrangement, please contact HKEX-IS by sending email to marketdata@hkex.com.hk.

k. **Bandwidth Requirement:** The minimum bandwidth requirement for CCCG session is 60 Kbps/Throttle rate.

l. **Monthly Fee for CCCG Session/ Backup CCCG Session:** The monthly fee will be charged at amounts depending on the number of standard CCCG throttle rates assigned (including standard CCCG throttle rate acquired from the Exchange and throttle rates subscribed under the China Connect Monthly Throttle Subscription Scheme) to the CCCG session/Backup CCCG session (i.e. low, standard and high capacity) rolled out as at the first trading day of each month. The fee is calculated on a full calendar month basis. A new CCCG session/ Backup CCCG session rolled out on the 2nd trading day or afterwards during the month will be charged of the monthly fee in the following month. There will be no refund of CCCG session/ Backup CCCG session fee for the month if termination is effective during the month. Please refer to Section B – "Fees and Charges" for details of charges.

m. **Monthly Fee for Standard CCCG Throttle Rate Assigned to CCCG Session:** The monthly fee will be charged base on the number of standard CCCG throttle rate assigned to the CCCG session as at the first trading day of each month. The fee is calculated on a full calendar month basis. There will be no adjustment on the movement of standard CCCG throttle rate during the month. Please refer to Section B – "Fees and Charges" for details of charges.

n. **Monthly Fee for Standard CCCG Throttle Rate under the China Connect Monthly Throttle Subscription Scheme Assigned to a CCCG Session:** The subscription of China Connect Monthly Throttle and assignment to CCCG session will be charged on a full calendar month basis. Any China Connect Monthly Throttle rate which is being subscribed for less than a full calendar month will nevertheless be charged for a full calendar month. Please refer to Section B – "Fees and Charges" for details of charges.

o. **Backup Arrangement for CCCG Session:** In order to reduce disruption to the EP's trading operations due to failure of its CCCG/BSS, for each CCCG session, EP may apply for a backup CCCG session for connection from a backup CCCG/BSS in its office or in its business continuity centre by providing a maximum 3 additional

IP addresses to HKEX for the same Comp ID.   EP can connect to its backup CCCG session via the backup CCCG/BSS and continue trading without prior notification to HKEX.   EP should take note that at any time, only one of the 4 BSS IP addresses (i.e. 1 primary and 3 backup IPs) can be allowed to connect by using the assigned Comp ID.

p. **HKEX Orion Market Data Platform – China Connect (Securities) ("OMD-CC") Connection:** EP may choose to receive market data (1) directly from OMD-CC; (2) directly from Shanghai and / or Shenzhen Stock Exchange and/or (3) indirectly via information vendors.   If EP chooses the first option, EP needs to sign the Standard Terms and Conditions for Use of China Connect Market Data ("OMD-CC T&C") with HKEX Information Services Limited.   Each EP will be given two standard sets of OMD-CC connections under the OMD-CC T&C.   Please contact Market Data team by sending email to MarketData@hkex.com.hk for more information on OMD-CC and OMD-CC ASP.

Section B – Fees and Charges

a. One-Time Charge

Fee Type	Amount (HK$)
Administration fee for each CCCG session or backup CCCG session	$20,000
Standard CCCG throttle	$50,000 each

b. Monthly Fee

Chargeable Item	Amount (HK$)

CCCG Session Fee or Backup CCCG Session Fee depending on the number of standard CCCG throttle rates assigned (including any assigned under the China Connect Monthly Throttle Subscription Scheme):
Low Capacity
    Up to 20 standard CCCG throttle rates assigned
 	
Standard Capacity
    21 – 60 standard CCCG throttle rates assigned
 	
High Capacity
    61 – 100 standard CCCG throttle rates assigned
    101 – 150 standard CCCG throttle rates assigned
    151 – 200 standard CCCG throttle rates assigned
    201 – 250 standard CCCG throttle rates assigned
	$2,000 for the 1st session for trading or its backup of each EP; $7,500 for each additional session
	
	$10,000 for each session
	
	$15,000 for each session
	$20,000 for each session
	$25,000 for each session
	$30,000 for each session

Each Standard CCCG Throttle Rate acquired from HKEX and assigned to a CCCG session	$960
Each standard CCCG Throttle Rate under the China Connect Monthly Throttle Subscription Scheme and assigned to a CCCG session	$2,000