

Section A – Notes to the Application

a. Kill Switch (KS) session and function:

- i. **KS session** means a Central Gateway (CG) session through which an Exchange Participant (EP) may input instructions to cancel outstanding orders of the EP and to disallow any input of order into the Orion Trading Platform – Securities Market (OTP-C) by broker number of the EP (singly or in multiples) for the purpose of risk management in emergency situations. EPs may connect their Broker Supplied Systems (BSS) to CG via subscription to one or more KS sessions. The KS session is solely for conducting KS function and cannot be used for other purpose. For each KS session an EP subscribes, it may apply for a Backup KS session.
- ii. **KS function** refers to a special On-Behalf-Of (OBO) mass cancel request function with details as follows:
 - Function to be performed by a valid KS request: (i) suspend the targeted broker number and (ii) OBO mass cancel all outstanding orders (including board lot and odd/special lot orders) of that targeted broker number in all market segments of the Hong Kong securities market. It does not allow choice of order side or stock code or market segment for order cancellation; any invalid KS requests will be rejected by the system.
 - KS request should be submitted via the CG session supporting KS function by a specific assigned KS broker number during the trading states in which order cancellation is allowed (e.g. Order Input, Order Cancel and Continuous Trading).
 - If the KS request is valid and submitted during a trading state in which order cancellation is allowed, the system will accept the instruction and process the broker number suspension and order cancellation.
 - If the KS request is submitted during a trading state in which order cancellation is not allowed, the request will be accepted for broker suspension, however, orders will not be cancelled. If it happens, EP can initiate KS requests again to cancel the targeted broker number's outstanding orders during a trading state in which order cancellation is allowed.
 - After the targeted broker number(s) has been suspended, the CG session assigned with targeted broker number(s) will be disconnected and other broker numbers (if any) on the same CG session could be impacted. EP can perform sign on again to use the other broker numbers to input order/ trade or receive manual trade but it cannot use the suspended broker number.
 - Effective for the day only - the suspension of the targeted broker number(s) through KS function is effective for the current trading day only and the suspension status will not be carried over to next trading day. In case there is a need to activate the suspended broker number on the same trading day that the broker number has been suspended, EP would need to complete and submit the relevant application form to HKEX – Trading to proceed.

b. Broker Number Assignment: One broker number will be assigned to each KS session.

c. Message Protocol: A KS session can support either Binary or FIX message protocol. Selection must be specified before the connection. EP should refer to the interface specifications of CG for details of these two message protocols at http://www.hkex.com.hk/eng/market/sec_tradinfra/ocg/orioncg.htm.

d. IP Address Scheme for CG/BSS: It will be provided separately in the [Connectivity Guide HKEX Orion Central Gateway - Securities Market \(OCG-C\)](#). EPs should assign the IP addresses within their own usable IP address range to the KS session. IP addresses which have already been assigned by other EPs will not be allowed to be used.

(Updated in October 2021)

- e. **Testing Requirement of a KS session under application:** EP is required to conduct end-to-end test and rollout test of the BSS conformance test before a new KS session can be rolled out. EP may contact HKEX – Participant General Enquiry Hotline at 2840-3626 for collection of the BSS testing package. After submission of positive end-to-end test result, HKEX will schedule EP to conduct rollout test to verify the connection among BSS, the KS session and OTP-C Host via production circuits.

Below is the different types of conformance test required for the application for a new KS 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 new KS session	New BSS	New SDNet/2 or HSN	No	Yes	Yes
	New BSS	Existing SDNet/2 or HSN	No	Yes	Yes (<i>“Not Required” if EP agrees with limited support/troubleshoot from HKEX during weekdays</i>) ^{NB1}
	Existing BSS already certified with KS function	New SDNet/2 or HSN	No	No	Yes
	Existing BSS already certified with KS function	Existing SDNet/2 or HSN	No	No	Yes (<i>“Not Required” if EP agrees with limited support/troubleshoot from HKEX during weekdays</i>) ^{NB1}

^{NB1} Rollout test is applicable for a new KS session application. If the new KS 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 KS session will undertake all possible technical and/or operational risks, that may have been resulted from non-participation in Rollout Test to verify connection of the new KS 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 new KS session during initial rollout.

- f. **Rollout the new KS Session:** EP may rollout the new KS session after successful completion of required test(s), submission of end-to-end test confirmation reply, BSS Declaration and rollout notification to HKEX by giving not less than 1 week in advance notice.
- g. **Relocation of Existing Circuits Connected to BSS to KS session:** EP has to inform HKEX by submitting the “Requisition Form for Change of BSS Connection Information for Orion Central Gateway – Securities Market (OCG-C) / Drop-Copy Session” at least 3 trading days prior to the effective date. EP is required to participate in the Rollout Test. If 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.
- h. **Circuit and Network Switch Installation:** Dual-circuit connection is required for connecting to each KS session. EP can either install dedicated dual circuits for KS session(s), or share the same dual circuits of KS 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 KS session(s)					
	Other CG	Drop-Copy	OMD-C	CCCG	CC Drop-Copy	OMD-CC
(i) SDNet/2 circuit	✓	✓	✓	✓	✓	✓
(ii) SDNet/2 ASP connection	✓	✓	✓	✓	✓	✓
(iii) HSN	✓	✓	✓	✓	✓	✓
(iv) HSN Virtual Port Service	✓	✓	✓	✓	✓	✓

- ✓ allow to share same circuits with KS session(s)
X not allow to share same circuits with KS session(s)

Type of network subscription:

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

[https://www.hkex.com.hk/Services/Connectivity/SDNet-2/Securities-Trading-\(OTPC-Shanghai-and-Shenzhen-Connect\)?sc_lang=en](https://www.hkex.com.hk/Services/Connectivity/SDNet-2/Securities-Trading-(OTPC-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 circuit connectivity to multiple EPs, and manages 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 circuit number, IP addresses and installation date in order to fill in the form of Application for Central Gateway.

For more information on ASP connections, 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 EPs’ 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 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 KS session. For further details on network configuration, EP should refer to the [Connectivity Guide HKEX Orion Central Gateway – Securities Market \(OCG-C\)](#).

- i. **Bandwidth Requirement:** The bandwidth requirement for KS session is 40 Kbps.
- j. **Standard CG Throttle Rate:** Each KS session will be assigned one standard CG throttle rate. One standard CG throttle rate provides the throughput of 2 messages per second. Additional standard CG throttle rate will not be allowed for each KS session.
- k. **Monthly Fee for KS Session/ Backup KS Session:** The monthly fee is calculated on a full calendar month basis and will be based on number of sessions rolled out as at the first trading day of each month. A new KS session/ Backup KS 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 KS session/ Backup KS session fee for the month if the termination is effective during the month. Please refer to Section B – “Fees and Charges” for details of charges.
- l. **Backup Arrangement for KS Session:** In order to reduce disruption to the EP’s trading operations due to failure of its CG/BSS, for each KS session, EP may apply for a backup CG session for connection from a backup CG/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 KS session via the backup CG/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) is allowed to connect by using the assigned Comp ID.

Section B – Fees and Charges

a. Monthly Fee	
<i>Chargeable Item</i>	<i>Amount (HK\$)</i>
Kill Switch Session or Backup Kill Switch session	\$6,000 for each session